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INVESTIGATE THE WESTINGHOUSE

Railway Wages and the Durable Goods Industries

The revival of the durable goods industries, in which more than five million persons are still unemployed, continues to be the major problem of economic recovery in this country. The Committee on Durable Goods Industries, of which George H. Houston, president of the Baldwin Locomotive Works, is chairman, issued last week an important statement emphasizing the necessity for liberalization of the Securities Act of 1933 as one means of solving this problem. It cannot be solved without, in the committee's language, "the opening up of channels for the free flow of private savings into normal investments," and this free flow of private capital into normal investments cannot be restored as long as the government continues to absorb almost all of the available capital by the sale of vast amounts of its own securities, and, at the same time, hampers and penalizes investment in private industries by the Securities Act.

Involved in the problem of reviving the durable goods industries is also the vital question as to whether some of the most important major industries, including the railways, shall be allowed to increase their net earnings enough to increase their purchases adequately even if the Securities Act is reasonably liberalized. The pending controversy between the railways and the labor organizations regarding wages presents an issue which is also presented in controversies regarding wages in other industries, and the settlement of which will largely determine how rapidly general economic recovery will occur. This issue is as to whether readjustments between the payrolls and the earnings of these industries shall or shall not be made now in disregard of the effects that will be produced upon business and employment in the durable goods industries. The theory which has been so widely accepted within the last year, especially by those responsible for the government's economic policies, that increases in wages will revive business, ignores the vitally important fact that industries, not individuals, are the large customers of the durable goods industries, and that consequently general increases of wages, if made at the wrong time, will protract depression in the very industries in which revival is most needed.

Railway Purchases Determined by Net Operating Income

Taking the railroads as an example, what is the principal influence which causes an increase or decrease of their purchases from the durable goods industries? The

Railway Age has thoroughly analyzed the statistics bearing upon this question for a period of years, and they demonstrate that the volume of railway purchases from year to year, and almost from month to month, is determined by the amount of net operating income that the railways earn. All the purchases of equipment and supplies included in their capital expenditures are made from net operating income or with capital they are enabled to raise by actual or prospective net operating income. The purchases of materials and supplies in-

Railway Freight Traffic, Net Operating Income and Purchases, 1925-1933, Inclusive

	% Incr. Car Loadings (000)	% Incr. Ton-Miles (000,000)	% Incr. Net Operating Income (000,000)	% Incr. from Manufacturers (000,000)	% Incr. Purchases from Manufac- turers (000,000)
1925.....	51,224	414,089	\$1,138	\$1,225	
1926.....	53,098	+ 3.7 444,097	+ 7.2 1,233	+ 8.3 1,472	+20.1
1927.....	51,635	- 2.8 429,068	- 3.4 1,085	-12.0 1,249	-15.1
1928.....	51,589	- 0.1 433,059	+ 0.9 1,194	+10.0 1,138	- 8.9
1929.....	52,827	+ 2.4 447,112	+ 3.2 1,274	+ 6.7 1,319	+15.9
1930.....	45,717	-13.5 383,788	-14.2 885	-30.5 1,168	-11.4
1931.....	37,151	-18.7 309,308	-19.4 531	-40.0 544	-53.4
1932.....	28,179	-24.2 234,320	-24.2 334	-37.1 291	-46.5
1933.....	28,160	- 0.1 249,779	+ 6.6 474	+41.9 282	- 3.1
Five Year Average					
1925-1929.	52,075	433,485	1,185	1,281	
Four Year Average					
1930-1933.	35,002	-32.8 294,299	-32.1 556	-53.1 571	-55.4
First two months 1933	3,868		24		
First two months 1934	4,486	+16.0	60	+150.0	
First three months 1933	6,204				
First three months 1934	7,546	+21.6			

cluded in their maintenance expenditures are not made from net operating income, but fluctuate almost as closely with it as do capital expenditures.

Statistics for the years 1925-1933, inclusive, which demonstrate these propositions, are given in an accompanying table. They show that in the five years 1925-1929, inclusive, annual net operating income and purchases from manufacturers were almost the same in amount, the average difference being only 8 per cent; that the only year in which net operating income and purchases from manufacturers did not increase or decrease together was 1928; and that the lag in purchases in 1928 was overcome in 1929 by an increase in purchases relatively more than twice as great as the increase in net operating income in that year. The statistics further show that in the four years 1930-1933, inclusive, average annual net operating income

and purchases from manufacturers were again almost the same, the difference between them being less than 3 per cent, and that the only year in which an increase or decrease of net operating income was not accompanied by an increase or decrease of purchases from manufacturers was 1933. Finally, they show that average annual net operating income of \$556,000,000 earned in the four years ending with 1933 was 53 per cent less than the average annual net operating income earned in the five years ending with 1929, and that average annual purchases of \$571,000,000 from manufacturers were 55.4 per cent less.

Increased Net Return and Increased Purchases

The correspondence between these figures is striking. It is, of course, only a coincidence, although an extraordinary one, that over a period of years the amount of net operating income earned annually has been almost the same as the total purchases made from manufacturers. It is more than a coincidence that annual net operating income and purchases from manufacturers have increased and decreased so closely together. Here the relationship of cause and effect is plain. A decline of net makes necessary a reduction of purchases; an increase of net affords opportunity and incentive to increase purchases.

In view of past experience, a large increase in railroad buying is plainly forecast by the increases of traffic and net operating income that are occurring in 1934. The railways had 42 per cent more net operating income in 1933 than in 1932. In the first two months of 1934 their car loadings increased 16 per cent and their net operating income 150 per cent. In March their car loadings increased 33 per cent, and probably they will report for that month a relatively larger increase in net operating income than occurred in the preceding two months. With this record of increased traffic and net operating income in 1933 and in the early months of 1934, they already are placing larger orders for equipment and supplies than within the last three years.

Railroad buying has been temporarily stimulated by government loans, but it will be determined principally in the future, as it has been in the past, by the amount of net operating income earned. In the five years ending with 1929 railway purchases from manufacturers averaged \$1,281,000,000 annually. In the four years ending with 1933 they averaged only \$571,000,000 annually, and in 1933 amounted to only \$282,000,000. Obviously, no greater single contribution toward a revival of business and employment in the durable goods industries, and thereby to economic recovery in general, could be made than a continuance of the increase in railroad net operating income and a consequent continuance of the increase of railroad buying.

The Position of Labor Leaders

Now, what is the position taken by railway labor leaders in the present wage controversy? It was stated as follows on March 30 by Joseph B. Eastman, Federal Co-ordinator of Transportation, in summariz-

ing his efforts to effect a compromise of the pending wage dispute: "The labor representatives further suggest that the financial structures of the railroads are unsound, because of the disproportionate burden of fixed charges. If, therefore, an increase in wages should precipitate conditions which would compel the readjustment of these financial structures, such a result would conduce to sounder economic conditions in the industry and would help it to meet the new competitive conditions. In the meantime, the employees would be as well off under receivers or trustees as under present conditions, if not in a better situation, as they have learned from experience." What this means is, that railway employees have a right to an advance in wages which is so completely paramount to the rights of the owners, not only of railroad stocks, but also of railroad bonds, that wages should be advanced even if this would so increase operating expenses and reduce net operating income as to throw the railroads into bankruptcy and destroy the value of their securities. Much might be said to show that while this proposition is consistent with the economic philosophy of those new dealers who believe the "profit system" should be destroyed, it is entirely inconsistent with the legal and economic principle heretofore accepted in this country as fundamental, that, for both constitutional and economic reasons, rights or property are as much entitled to consideration as the right of labor to reasonable wages.

Wages and Purchases

What we are especially concerned with in this discussion, however, is the effect that practical application of the views of the labor leaders would have upon recovery from the present depression. Regardless of what they may think ought to be the effect, nothing can be more certain than that the actual immediate effect of adoption of the policy they advocate in the name of the "rights" of railway labor would be to protract the unemployment of labor in the durable goods industries, because restoration of the basic wages paid prior to 1932 would, on the basis of present traffic, increase railway operating expenses about \$200,000,000 annually, correspondingly reduce net operating income and thereby cause a reduction of railroad buying until a further increase of traffic and net operating income occurred. The issue presented in the railway wage controversy is not, therefore, merely one between railway security owners and railway employees. It is equally an issue between the employees of the railways and the millions who formerly were employed, and who want employment now, in the durable goods industries. The durable goods industries that are dependent upon the railroads for business cannot be revived if increases in railway payrolls are to be made which will largely reduce railway purchasing power.

The Administration and the Wage Controversy

The question whether this shall be done is up to the Roosevelt administration, which apparently must

settle the railway wage controversy. It cannot eat its cake and keep it. It cannot promote the revival of the durable goods industries, which it so greatly desires, and at the same time support labor policies having an exactly opposite tendency. It will do no good to continue to theorize about the problems of the durable goods industries, or even to liberalize the Securities Act to help them, if the purchasing power of the industries upon which they are principally dependent for business is to be curtailed by curtailment of their net earnings. The business and employment of the durable goods industries can be revived only by increasing buying from them, and no adequate increase in buying from them can be made possible excepting by a continued increase in the net earnings of the railways and other industries that must do most of the buying from them.

If their net operating income is allowed to continue to increase, the railroads can be relied upon by a continued large increase of their purchases, to contribute immediately and largely to economic recovery, but they will be unable to do so if their net operating income is curtailed by premature increases in their payrolls.

Fare Experiments Need Careful Study

In keeping with the new spirit on the railroads, the former standard passenger fare of 3.6 cents per mile has lost much of the sanctity with which it was formerly regarded—this even in Eastern territory where it still remains in effect, but honored as often by exceptions in the form of special rates as by observance. The attitude of polite skepticism regarding this rate is undoubtedly wholesome, but care must be exercised not to surround some other rate—such as 3 cents or 2 cents or even 1½ cents—with the veneration formerly bestowed by passenger traffic officers quite generally upon 3.6. The fact is that, however close we may be able to guess at it, no one actually *knows* what the ideal rate for passenger service is in the United States or any territorial division—the ideal, of course, being the highest net return to the railroads.

With this attitude toward the problem, the more experimental data there are available on a wide range of rates, the more likely are we to hit upon the one most closely approximating the ideal. Such data on one of these rates—1½ cents a mile in coaches—has been made public in the brief filed with the Interstate Commerce Commission in behalf of the Southern Railway asking for an extension of this rate experimentally from June 1 to the end of the year.

The brief cites an experiment made with a coach fare of 2 cents between Macon, Ga., and Atlanta for 7½ months in 1929, which brought an increase in the number of passengers, but not sufficient to offset the

reduction in the rate. Specifically, during that period the number of passengers increased 16.98 per cent over the same period in 1928, but gross revenue declined 11.19 per cent.

Not discouraged by the failure of this rate to produce the desired results, the management determined upon an even bolder experiment and established a rate of 1½ cents on several divisions. The results were striking. Between Winston-Salem, N. C., and Goldsboro in October, 1931, ticket sales (at 3.6 cents a mile) were 3,608 and gross revenue, \$4,109; in October, 1932, ticket sales (at 1½ cents) totaled 11,646 and gross revenue \$6,539—an increase in revenue of 59.14 per cent. Comparing these same two months on the Southern Railway as a whole, where the 3.6-cent rate was still in effect, there was a decline of 33 per cent in gross revenues. Not only that: In October, 1933, the total passengers handled between Winston-Salem and Goldsboro increased to 18,039 (practically 5 times the number handled in October, 1931) and gross revenue mounted to \$8,023, or an increase of practically 100 per cent over October, 1931.

On the Asheville-Murphy division in October, 1932, with the rate at 3.6 cents, there were 583 tickets sold and gross revenue was \$600. In October, 1933, with a rate of 1.5 cents, the tickets sold totaled 5,355 and the gross revenue \$1,896—an increase of 216 per cent in revenue and of nine-fold in the volume of traffic. Experiments conducted on other parts of the line produced similar results, so that, on December 1, the company was given permission to place the 1½-cent rate in effect over its entire system. These fares, the company contends, have not been tried long enough to determine their ultimate effect—but they do offer much encouragement in that the percentage of increase in gross revenues over the corresponding month of the preceding year has been growing each month. In December, 1933, the first month when the new rate was in effect throughout the system, the increase in patronage over the same month a year previous was 97.47 per cent and in revenues 0.04 per cent. In January, 1934, the increase over the preceding year was 109.30 per cent in volume and 10.75 per cent in revenue. In February, passengers increased 110.05 per cent and revenue 18.55 per cent. In March an increase in revenues of more than 38 per cent over March, 1933, is indicated by the preliminary figures.

Information of this kind is most enlightening and it will be interesting to compare the results secured by this rate with those from different rates in other parts of the country—which is not to say, of course, that there is one rate which will serve all the railroads of the country with equal effectiveness. We have a laboratory in passenger fares now such as has probably never before existed and we should make the most of it. Perhaps a careful study of the available figures in the coming months may make it possible to detect some relationships hitherto unsuspected between railway fares, gross and net revenues and traffic volume, which may point the way toward making this business yield some real net income in future.

Thirty-Five Main-Line Grade Crossings



in New York

Work under contract involving
25 bridges, will remove important

The Empire State Express at
Washington and Franklin Sts.

THE elimination of all main-line grade crossings of the New York Central within the city of Syracuse, N. Y., contract for which was awarded on December 8, 1933, will constitute one of the major projects of this character to be carried forward during 1934. In this project, the whole complexion of the New York Central, its lessee line the West Shore Railroad, and a number of its branches within the city will be changed. All main-line tracks will be removed from city streets; all main-line grade crossings will be eliminated; and such tracks as are permitted to remain in streets will be utilized solely for local freight service and for industrial switching, which will involve little or no inconvenience or hazard to vehicular traffic.

The key to the plan is the abandonment of the present double-track passenger main line of the road through East Washington street, a main business street of the city, and the consolidation of this line with the double-track main line of the West Shore Railroad into a three-track line which will be elevated through the city over a distance of approximately 4.3 miles. Of the three elevated tracks, the northerly one will be a West Shore track while the two southerly ones will be New York Central tracks. This work will involve approximately 2,000,000 cu. yd. of embankment and the construction of 25 bridges, and calls for the construction of a new central passenger station which must be completed simultaneously with the opening of the new elevated line and the abandoning of the present passenger station. That part of the project already under contract does not include the new passenger station and the trackwork and signal installations.

Central Has Many Grade Crossings

To appreciate fully the importance of the New York Central project in Syracuse, which has a population of about 210,000, and to understand clearly even the major details of the work, it is necessary to have a general picture of the railroad's long-established facilities in that city. These include principally the two-track passenger main line of the New York Central proper; the double-track main line of the West Shore Railroad; the Syracuse Junction branch; the Watertown branch, formerly the Rome, Watertown & Ogdensburg Railroad; the Chenango branch; the Auburn branch, and two shorter

purely industrial branches, in addition to several yards and a large number of sidings and team tracks.

The present main line of the Central enters the city from the east on its own right-of-way and passes in a general westerly direction through the main business section as a double-track line, occupying East Washington street longitudinally for a distance of approximately 1.4 miles. This line carries all through passenger traffic into and out of Syracuse, as well as local passenger traffic of the main line and of the Chenango and Auburn branches, and a number of express, mail and local freight trains. The total number of trains moving over the line daily averages approximately 100. In their approach to and location in East Washington street, the main line tracks cross 17 north and south streets at grade, a number of these being important thoroughfares.

The present passenger station is located at South Franklin street, at the west end of the occupation of Washington street. This building, which was constructed in 1895, is a stone-faced structure served by a large train shed. West of the station, the main line, with supporting coach and freight yards, occupies a private right-of-way to the west city limits, but within this territory it crosses three additional streets at grade.

West Shore and Branches Have Many Crossings Also

The West Shore main line practically parallels that of the Central about four blocks to the north, but occupies its own private right-of-way. This line crosses 23 streets at grade within a distance of about 2½ miles. Its most important grade crossings within the heart of the city are at North State, James and North Salina streets, the latter two of which carry street-car tracks.

The Syracuse Junction branch, which is the New York Central's through freight line around Syracuse, passes to the north of the city, extending from the DeWitt classification yard at East Syracuse, to the main line at Syracuse Junction at the west end of the city, a distance of approximately eight miles. This branch, which also handles considerable local freight business, passes through an industrial section which is rather sparsely settled.

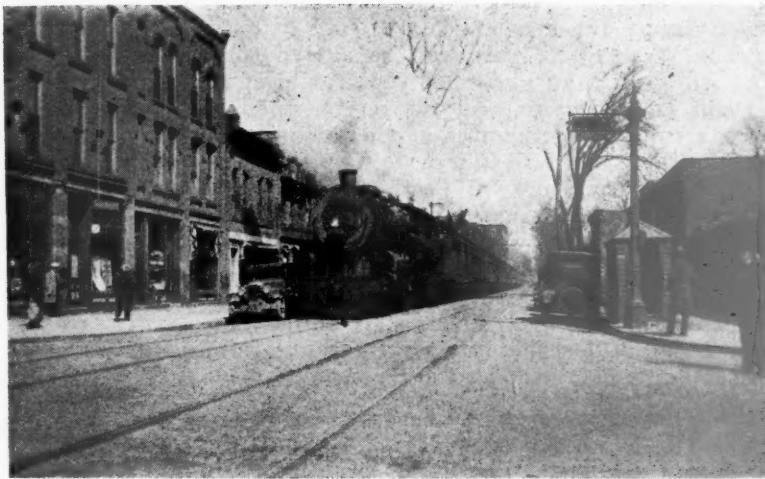
The Watertown branch is a single-track line which enters the city from the northwest in the vicinity of Salina Junction. This line extends through North

to Be Eliminated in City of Syracuse

Central Project

2,000,000 cu. yd. of grading and
railway traffic from busy streets

Passenger Trains Operate in
Washington St. for 1.4 mi.



Clinton street for a considerable distance and then enters North Franklin street, through which it continues to the present passenger station of the main line. Altogether, this branch occupies about 1.1 miles of city streets, within which distance it crosses a number of other streets at grade. This line also crosses the Syracuse Junction branch at grade at Salina Junction, and the main line of the West Shore at grade in North Franklin street.

The Chenango branch enters the city from the east on the south side of the New York Central main line, and then crosses to the north of the main line about 1,000 ft. east of the point where the main line enters East Washington street. Beyond this point it extends westerly through Canal street, just south of and parallel with the main line of the West Shore, for a distance of approximately one mile. This part of the line is used solely for the handling of local freight, since the passenger service of the branch within the city is handled over other trackage into the present passenger station.

The Auburn branch enters Syracuse from the west and joins the main line at Syracuse Junction. East of this point its traffic moves over either the main passenger line or the Syracuse Junction branch, so that the Auburn branch in itself does not affect the present grade crossing problem.

Other Industrial Branches and Yards

There are three other branches of some importance in Syracuse, called the First Ward branch, the old Auburn branch, and the Tracy Street branch. Only the first of these, however, the First Ward branch, is involved in the present project. This branch leaves the main line of the West Shore near Pearl street and extends in a general northerly direction for a distance of approximately 2½ miles, occupying streets longitudinally for most of this distance. It crosses a considerable number of streets at grade but is not particularly objectionable since it is used only for freight service to local industries.

The three principal yards within the city are the coach yard serving the passenger station, which lies immediately west of the station between South West street and South Geddes street; a large local freight yard of the Central, known as the West Street yard, which lies alongside the passenger coach yard; and the Elm Street

freight yard of the West Shore, which is located immediately north of Canal street, between Elm and McBride streets. Both of the freight yards are used mainly as assembly and distribution points for local freight.

Outline of the Changes to be Made

In the changes which are to be made at Syracuse, all New York Central traffic now operating through Washington street will be diverted to the new elevated line through two connections; one located between Midler avenue and Peat street, in the eastern part of the city, and the other west of Hiawatha street on the west side of the city. The new three-track line will be carried on embankments between streets, with structural steel bridges over the streets.

When the high-level line is completed, the present main tracks in Washington street from Irving avenue to Franklin street, a distance of approximately 4,800 ft., will be abandoned. The tracks east of Irving avenue will remain in service, but will be used only for serving local industries. Likewise, when the new elevated main tracks are put in service, through traffic over the Watertown branch will be discontinued via North Clinton and North Franklin streets, and the present track of this branch in Franklin street, from Laurel street to the present passenger station, will be abandoned. The remaining trackage of the branch within the city will be maintained as located, but will be used solely for local freight and industrial service. The passenger trains of the branch, which now proceed down Franklin street to the present Central station, will operate over the Syracuse Junction branch from Salina Junction to Syracuse Junction, and thence over the elevated main line tracks into the New York Central passenger station. Freight traffic from the Watertown branch will move over the Syracuse Junction branch easterly to DeWitt yard, or westerly to Belle Isle yard, west of the city.

Changes in the Chenango branch include principally the construction of a new connection with the main line of the West Shore just east of the city limits. This new connection, which has already been built, will permit Chenango branch passenger trains to move directly over one of the elevated main tracks to the new passenger station. The old section of the branch into the

city, east of Crouse avenue and west of Catherine street, will remain for local industrial service only.

The connection of the First Ward branch through Pearl street to the West Shore will be removed and a new connection, now under construction, will be provided from a point near the north end of the branch, to the Syracuse Junction branch.

The West Street yard will be altered considerably but will remain an important yard for team track and freight house service, and for serving industries. In fact, a considerable number of alterations have already been made in this yard to provide team tracks to replace the present team tracks at Pearl street and vicinity. A new team yard is planned near Peat street to replace Chenango branch team track facilities in the vicinity of Howard street. This yard will include six tracks, with capacity for 85 cars. A small freight yard will also be constructed near Peat street, and, in fact, this yard, which will include nine tracks with an ultimate capacity for 200 cars, is now under construction.

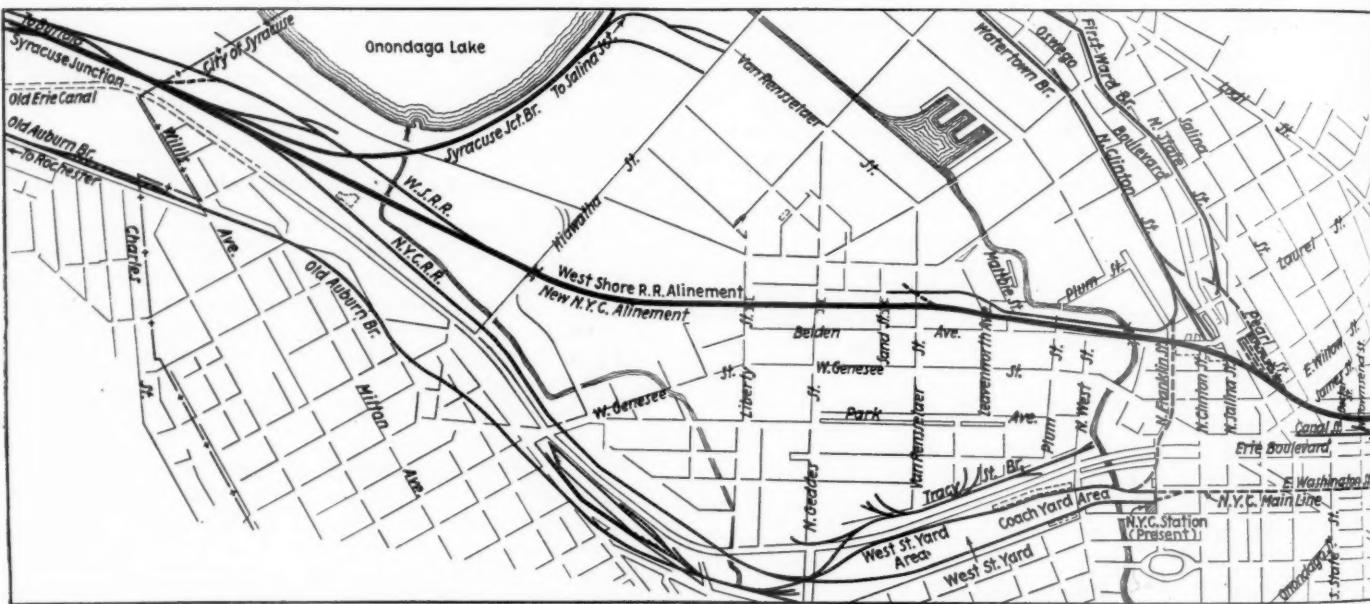
Details of Crossing Changes to be Made

In passing through Syracuse, the West Shore crosses 23 streets at grade, while four other streets extend beneath it in narrow underpasses, and two streets are car-

the New York Central connection from DeWitt yard to the West Shore railroad. In 1930 this highway was shifted to the west and carried directly over the two-level main line railroad crossing on a steel girder structure with long viaduct approaches. The structure built in effecting this elimination is approximately 1,650 ft. long, and, directly over the intersecting railroad lines, is approximately 50 ft. above the New York Central tracks.

The four streets which already pass beneath the West Shore are Sand, North Geddes, Liberty and Hiawatha streets, all of which are on the west side of the city. These streets will be provided with new railroad bridges of greater span at the time the other new street bridges are constructed. The only highway bridge yet to be built in the project will carry Midler avenue over the present main line tracks of the Central, just east of where they will cross over their new elevated route.

Through the main body of the track rise the new tracks will, in general, be from 20 to 22 ft. above the present track level, but will reach a maximum height of 27 ft. in the vicinity of Plum street. Owing to the fact that most of the present tracks in the west half of the city are already on a fill, the new three-track fill will be much higher than the difference in track elevations would



General Plan of New York Central and West Shore R.R. Tracks Within Syracuse, N.Y.

ried overhead on long viaducts built a couple of years ago preliminary to the general grade crossing elimination project. From east to west, the streets involved, in one way or another, are, in order, as follows: Thompson road, Midler and Nichols avenues, Peat street, Greenway and Teall avenues, Beech, Elm and Lodi streets, North Crouse avenue, Catherine, North McBride, North Townsend, Decker, North State, James, Pearl and East Willow streets, Oswego boulevard, North Salina and North Clinton streets, Belden avenue, North Franklin, Plum and Maltbie streets, Leavenworth avenue, and Van Rensselaer, Sand, North Geddes, Liberty and Hiawatha streets.

Thompson road formerly crossed beneath the West Shore about 300 ft. east of the present two-level crossing of the West Shore and the New York Central main lines in the eastern part of the city, and while it involved no crossing of the West Shore main line at grade, it crossed the main line of the New York Central and the Chenango branch of the West Shore at grade, and also

indicate, and will reach a maximum height of about 40 ft. above the general ground level in the vicinity of Liberty street.

The rise in the track grade at the east end of the work will begin at practically the east end of the new connection between the Central and the West Shore tracks. The initial rise will be on a 0.3 per cent grade, which will extend to the present West Shore right-of-way, a distance of about 3,700 ft. At this point, the elevated main tracks will be approximately 12 ft. above the level of the present tracks. Immediately west of this point the tracks will be on a level grade for about 1,600 ft., beyond which, for about 3,000 ft., they will drop on a 0.10 per cent grade to the west and then continue on a level grade for a distance of about 2,600 ft. Within this latter stretch of level track the new station facilities will be provided. West of the station tracks, the main tracks will rise on a 0.15 per cent grade to the west for a distance of about 1,500 ft., and will then drop off on a general descending grade, varying from 0.18 to 0.3 per

cent, to the level of the existing New York Central main tracks at Syracuse junction.

Throughout, the elevated tracks will be supported on earth embankment between streets, with natural side slopes except at certain points where restricted width of right-of-way will make the construction of retaining walls necessary.

Three Types of Steel Bridges

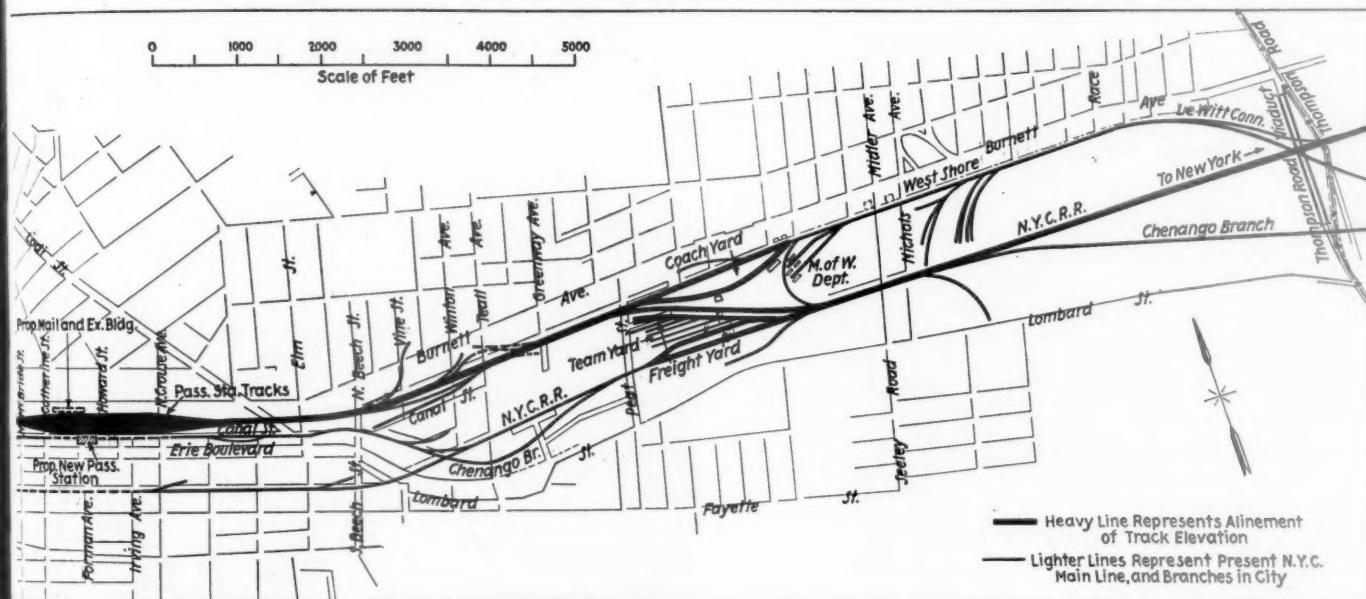
The bridges to carry the tracks over the streets will be of three general types, the longitudinal I-beam type, and the deck plate girder type, both with facia girders, and the through girder type with transverse floor beams. About half of the bridges will consist of single spans between abutments, while the other half will employ center columns, although in one case curb columns will be used alone, and in another case, both curb columns and center columns will be employed. In all cases the bridges will have either concrete deck slabs or steel deck floors, with asphalt blocks directly above a waterproofing course in both cases to prevent damage by the track ballast.

The longest railroad bridges to be built will be those across James, State, Lodi, Salina and Geddes streets, and Oswego boulevard and Willow avenue. These bridges will carry three tracks and involve rather long

erine street and North Crouse avenue, in a section of Canal street, which will be closed between these streets. In this location the station will front on Erie boulevard, a paved street 80 ft. wide, constructed over the old Erie canal bed. In practically all respects the new station will be more favorably located than the present station, and especially from the standpoint of accessibility from all sections of the city.

The track layout at the station will include 10 through station tracks in pairs, with five platforms. Four of the platforms will be of the island type, between pairs of tracks, while the fifth will be a one-side platform along the most northerly track. An additional stub track north of the passenger tracks will be used exclusively by mail and express cars in serving a mail and express building to be built on that side of the station layout. A couple of short double-end sidings toward each end of the station layout will serve the main through tracks to afford the greatest flexibility in the setting in or out of Pullmans, diners or other special equipment. There will also be two short stub tracks at each end of station layout.

The main passenger platforms, which will also be used for handling baggage to and from trains, will be 22 ft. wide, 1450 ft. or more in length, and will be provided



Syracuse, N. Y.—Heavy Line Shows Alignment of Track Elevation

girders, and, except at Geddes street will be on severe skews. The largest bridges, from the standpoint of the number of tracks, will be those over North Crouse avenue and Catherine street, at opposite ends of the new passenger station layout, both of which will carry 12 tracks and one or more turnouts. Both of these structures will be of the I-beam, plate-deck type with center columns, and each will provide a street opening of 66 ft.

In addition to the bridges over streets, a three-track main-line bridge and a single-track branch-line bridge will be necessary over Onondaga creek, which passes beneath the West Shore between North West and North Franklin streets. Mass-type concrete abutments, in most cases supported on piles, will be used at all of the bridges.

Passenger Station Track Layout

While details of the new passenger station have not been decided upon as yet, it is planned to locate the station on the south side of the tracks, between Cath-

erine street and North Crouse avenue, in a section of Canal street, which will be closed between these streets. In this location the station will front on Erie boulevard, a paved street 80 ft. wide, constructed over the old Erie canal bed. In practically all respects the new station will be more favorably located than the present station, and especially from the standpoint of accessibility from all sections of the city.

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senger trains will continue to come into the present Central station over the present route in Clinton and Franklin streets until a new interlocking plant at Syracuse Junction is completed and put in service. Then, instead of proceeding through North Clinton and North Franklin streets, they will move from Salina Junction to Syracuse Junction, and thence over the present New York Central main line to the station.

In addition to approximately 2,000,000 cu. yd. of grading, it is expected that the work now under contract will involve the use of approximately 186,000 barrels of cement and the erection of 12,600 tons of structural steel.

The work at Syracuse has been planned by the engineering department of the New York Central and is being carried out under the general direction of J. W. Pfau, chief engineer, and E. A. Dougherty, designing engineer. All bridge design was under the immediate direction of H. T. Welty, engineer of structures. The field force of the New York Central, already at Syracuse, is under the direction of A. D. Duffie, assistant engineer.

Contract for all of the grading, masonry and bridge work in the project as outlined, has been awarded to the Walsh Construction Company, Davenport, Iowa, which has sub-let the steelwork to the American Bridge Company.

Freight Car Loading

WASHINGTON, D. C.

REVENUE freight car loading in the week ended April 7 totaled 557,887 cars, a decrease of 50,556 cars as compared with the preceding week but an increase of 65,826 cars as compared with the corresponding week of last year and of 12,264 cars as compared with 1932. The principal decrease as compared with the week before was in coal loading, which declined 49,618 cars. Miscellaneous freight, merchandise, and ore showed increases. As compared with last year, merchandise, grain, and live stock showed decreases. The summary, as compiled by the Car Service Division of the American Railway Association, follows:

Revenue Freight Car Loading			
Week Ended Saturday, April 7, 1934			
Districts	1934	1933	1932
Eastern	131,027	110,547	130,622
Allegheny	110,172	89,566	111,116
Pocahontas	37,608	32,636	32,434
Southern	90,180	81,483	84,534
Northwestern	64,558	55,960	61,371
Central Western	78,651	75,904	80,265
Southwestern	45,691	45,965	45,281
Total Western Districts	188,900	177,829	186,917
Total All Roads	557,887	492,061	545,623
Commodities			
Grain and Grain Products	25,917	33,212	29,056
Live Stock	13,041	15,343	17,211
Coal	88,940	82,482	88,188
Coke	5,937	3,484	4,059
Forest Products	23,550	16,784	19,595
Ore	5,089	1,788	2,673
Merchandise L.C.L.	167,040	160,895	187,906
Miscellaneous	228,373	178,073	196,935
April 7	557,887	492,061	545,623
March 31	608,443	498,356	544,961
March 24	608,462	479,959	561,118
March 17	625,773	453,637	584,759
March 10	612,402	441,361	575,481
Cumulative Total, 14 Weeks	8,103,535	6,741,356	7,881,413

Car Loading in Canada

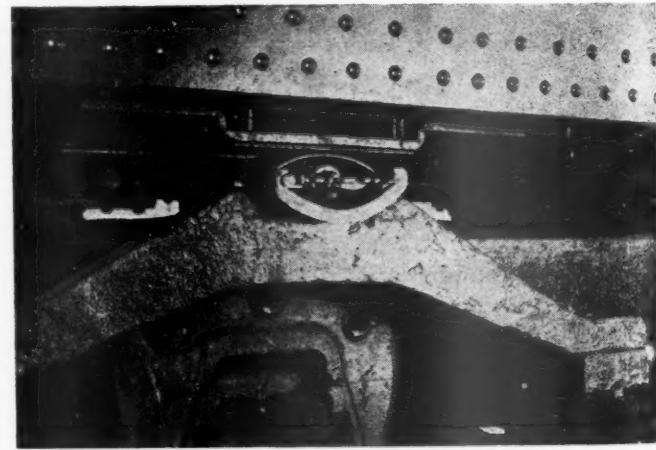
Car loadings in Canada for the week ended April 7 totaled 40,711, an increase of 2,199 cars over the previous week's total and an increase of 8,341 cars over 1933 load-

ings, according to the compilation of the Dominion Bureau of Statistics. After adjusting for the holiday in the previous week the index number showed a decline from 71.67 to 71.13, due to light loading in the western division.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
April 7, 1934.....	40,711	25,828
March 31, 1934.....	38,512	25,061
March 24, 1934.....	42,313	25,050
April 8, 1933.....	32,370	17,858
Cumulative Totals for Canada:		
April 7, 1934.....	570,502	324,380
April 8, 1933.....	463,169	239,734
April 9, 1932.....	576,765	303,610

A Shock-Absorbing Side Bearing

A SIDE bearing for passenger-train cars, developed and tested during the past two years by the Railway Products Company, 5949 Superior street, Chicago, is designed to include a shock-absorbing feature in its construction, as well as to provide a gradually increasing resistance to car roll under all conditions. It also promotes ease of truck swiveling, elimination of noise, and freedom from maintenance difficulties. The initial application of this side bearing was made to a steel dining car of the Chicago & North Western, on which it is reported to have given satisfactory service for a period of over 18 months, with frictional wear



Application of RPCO (Drews) Shock-Absorbing Side Bearing on a Steel Dining Car of the Chicago & North Western

negligible and no adjustments, repairs, or replacements required.

This side bearing, which is called the RPCO (Drews) type, can be applied without any change in the construction of car body or truck. It is simply bolted to the side bearing arch of the truck with two $\frac{1}{2}$ -in. bolts through an adapter plate which replaces the friction plate usually provided. The RPCO bearing, itself, comprises essentially a cast-steel base plate, which is capable of sliding movement at one end in a saddle casting to provide the small extension in length required when the supporting springs are compressed. These springs include an arched spring plate which bears against the car body side bearing and two truss springs located one on either side of the truck side bearing. In operation, when the car body rolls, the arched spring plate is flat-
(Continued on page 580)

M-K-T Chooses Sloan as Chairman

M. H. Cahill retires—Road, with small deficit in 1933, has weathered depression without federal aid

M. H. CAHILL has resigned the presidency and the chairmanship of the board of directors of the Missouri - Kansas - Texas, as announced briefly in last week's *Railway Age*, and Matthew S. Sloan, formerly president of the New York Edison Company, has been elected his successor in the latter position. The presidency, it is announced, will not be filled for the time being.

Mr. Cahill has had an outstanding career in railroading, having held executive positions on three important

Polytechnic Institute in 1901 and holds four degrees from that institution, including a doctorate in engineering. From 1902 to 1906 Mr. Sloan was in the employ of the General Electric Company at Schenectady, N. Y. He then became chief engineer of the Birmingham (Ala.) Railway, Light & Power Co. In 1914 he was elected vice-president and general manager of the New Orleans Railway & Light Co. He went to New York as assistant to vice-president and general manager of the New York Edison Company in 1917 and was president of this com-



MERRILL E. EWING

Michael H. Cahill



Matthew S. Sloan

carriers. Born at Lexington, Ohio, in 1874, he entered the service of the Baltimore & Ohio as a messenger in 1891. Advancing through the positions of telegraph operator, dispatcher, trainmaster, assistant superintendent and superintendent, he served that company for several years as general superintendent of its Pennsylvania and Maryland district—his entire career up to 1920 being with the Baltimore & Ohio excepting for a short period when he was superintendent of the Buffalo division of the Delaware, Lackawanna & Western. In 1920 he went to the Seaboard Air Line as general manager with headquarters at Savannah, Ga., and two years later was advanced to the vice-presidency in charge of operations of this company and its subsidiaries. He resigned this position in 1927 and thereafter was elected chairman of the board of the M-K-T, subsequently becoming also its president.

Mr. Sloan has spent his entire business career up to the present time in the electric power industry. Born in Mobile, Ala., in 1881, he was graduated from Alabama

pany and numerous affiliated public utility enterprises from 1928 to 1932. He is, as well, a director of several financial and industrial companies.

Although the M-K-T had a deficit of \$1,516,998 after fixed charges and interest on its adjustment bonds in 1933, its financial structure is most favorable in view of the increase being shown in its revenues during the current year. Moreover, it has not found it necessary to borrow any money from the Reconstruction Finance Corporation in order to meet current obligations. The Katy has no early maturities to face and, since 1925 it has reduced its adjustment mortgage bonds outstanding from \$57,500,000 to \$13,577,000 by conversion into preferred stock. In 1932, it earned its fixed charges 1.01 times; in 1931, 1.32 times; in 1930, 2.84 times; and in 1929, 3.22 times. As recently as 1930 the company earned \$10.62 a share on its 7 per cent preferred stock and \$3.01 on its common (no par value). Interest on its adjustment mortgage bonds has been paid regularly, and full dividend payments on preferred were made up to

September, 1931. The road is thus in a very favorable position to stage a "come-back" in earnings on its stocks with any considerable upturn in revenues.

The M-K-T has been able to make this favorable showing because of the aggressiveness of its management, combined with the favorable financial structure bequeathed by its reorganization and the extensive physical rehabilitation of the property which was instituted thereafter. The property was quite generally rebuilt

Table I—M-K-T Lines—Selected Items of Revenues and Expenses

	1933	1932	Increase or Decrease % of 1932	1933	Increase or Decrease % of 1929
Freight Revenue	\$21,314,967	\$22,151,230	- 3.8	\$44,619,989	- 52.2
Passenger Revenue	1,835,170	2,281,146	- 19.6	6,206,420	- 70.4
Other Operating Revenue	2,546,538	2,807,451	- 9.3	5,198,030	- 51.0
Total Operating Revenue	25,696,675	27,239,827	- 5.7	56,024,439	- 54.1
Maintenance of Way Expense	3,093,174	3,079,235	+ 0.5	7,708,903	- 59.9
Maintenance of Equipment Expense	3,843,890	3,672,340	+ 4.7	9,854,928	- 61.0
Transportation Expense	8,745,474	9,332,466	- 6.3	16,149,710	- 45.9
Total Operating Expenses	18,998,204	19,227,904	- 1.2	37,456,339	- 49.3
Net Operating Revenue	6,698,471	8,011,922	- 16.4	18,568,099	- 63.9
Net Railway Operating Income	2,943,744	3,782,424	- 22.2	12,566,092	- 76.6
Gross Income	3,335,644	4,280,734	- 22.1	13,641,059	- 75.6
Fixed Interest Charges	4,173,764	4,183,851	- 0.3	4,200,673	- 0.7
Net After Fixed Charges	* 838,120	46,462	....	9,395,574	- 189.20
Adjustment Bond Interest	678,878	678,878	0.0	869,333	- 21.9
Net Deficit	1,516,998	632,415	+139.9	† 8,526,240	- 177.9

* Deficit.

† Net Income.

as to rail, ballast and equipment. A great deal of drainage work was done, the shop facilities at Denison and Waco were rebuilt and the grades were reduced on the Parsons-Denison main line. These improvements and the revision of the capital structure in the reorganization of the company, combined with aggressive management policies in reducing expenses and soliciting traffic, have, in the past three years, amply testified to the wisdom which initiated them.

Revenue and expense statistics for the system for last year, compared with 1932 and 1929, are shown in Table I. It will be noted that, while maintenance expenses

decrease in expenses, which fact would indicate that any attention which the track may need and which has been deferred can be made up as revenues increase without permanent harm resulting.

Transportation expenses in 1933, it will be noted, were reduced by comparison with 1932 in greater proportion than the reduction in gross revenues. Table II, giving selected freight service operating statistics, discloses the fact that freight traffic increased in 1933 over the preceding year in spite of a decrease in revenues, indicating lower charges per ton-mile to the road's patrons. Train mileage increased considerably and this was not combined with an increase in tons per train, indicating in all probability a handicap under which all roads of comparatively light traffic must operate in times of depression—namely the necessity for operating trains to meet shippers' requirements regardless of the fact that tonnage may not be available to fill them out to capacity. The effect of this situation is borne out strongly by comparing the average tons per train in 1929 with the figure for 1933. Train speed, it will be noted, has been constantly improved, and the increase secured in fuel efficiency since 1929 is particularly noteworthy in view of the adverse effect which lighter train loading might have been expected to produce in this index.

The figures on equipment awaiting repair, as do those of most railroads, indicate that as traffic improves, a considerable amount of equipment maintenance work will probably have to be undertaken. The company on several occasions since the beginning of the depression has secured permission of the Interstate Commerce Commission to charge certain depreciation and retirement items to profit and loss rather than to operating expenses.

From a traffic standpoint, the Katy has been very aggressive. It has advertised its services intensively and has greatly improved them. Scheduled freight operations have been speeded up and are relied upon by shippers as passenger schedules are. In its passenger service between St. Louis and Texas points it co-operates with one of its principal competitors, the Frisco, in providing a joint service of high standard. The competition of motor transportation has been particularly severe in Katy territory, but the company's preliminary annual report for 1933 would indicate that definite progress has been made in meeting it and that some traffic lost to trucks has been regained by the railroad. In sum, the property would appear to be one in which the management over the past decade or more may well take pride, and one in which the new chairman will find a solid foundation upon which to build its success in future.

Table II—M-K-T Lines—Selected Freight Service Operating Statistics

	1933	1932	1933 % of 1932 + or -	1929	1933 % of 1929 + or -
Freight Train Miles (thousands)	4,167	3,942	+ 5.7	5,234	- 20.4
Locomotive Miles (thousands)	4,250	4,019	+ 5.8	5,465	- 26.5
Car-Miles (thousands)	169,318	165,628	+ 2.2	297,370	- 43.1
Gross Ton-Miles (thousands)	6,091,905	5,933,940	+ 2.7	10,579,400	- 42.4
Net Ton-Miles (thousands)	2,140,738	2,103,052	+ 1.8	4,054,759	- 47.2
Train-Hours	236,372	232,048	+ 1.9	374,914	- 37.0
Cars per Train	41.6	43.0	- 3.2	57.8	- 28.0
Gross Tons per Train	1,462	1,505	- 2.7	2,021	- 27.7
Net Tons per Train	514	533	- 3.5	775	- 33.6
Net Tons per Car	20.9	21.2	- 1.4	23.1	- 9.5
Per Cent Loaded to Total Car Miles	60.6	59.9	+ 1.2	59.0	+ 2.8
Train Speed m.p.h.	17.6	17.0	+ 3.6	14.0	+ 25.8
Gross Ton-Miles per Train-Hour	25,773	23,572	+ 8.8	28,218	- 8.7
Net Ton-Miles per Train-Hour	9,057	9,063	- 0.6	10,815	- 16.3
Per Cent Freight Cars Unserviceable	6.9	4.4	+ 57.0	6.4	+ 8.0
Per Cent Locomotives Unserviceable	31.0	28.9	+ 7.3	20.8	+ 49.1
Lb. Coal per 1,000 Gross Ton Miles	93	92	+ 1.1	95	- 2.1

in 1933 were reduced quite sharply when compared with 1929, they nevertheless were increased as compared with 1932. As far as track maintenance is concerned, observers have noted that the track structure, from its riding qualities, does not appear to have suffered greatly so far from curtailed maintenance, in spite of the great

MAINTENANCE OF SERVICE by commercial air lines enabled the Air Division of the Railway Express Agency to continue to show air express traffic gains for the month of February. Shipments handled over 13,500 mi. of air lines showed an increase of 120 per cent over February, 1933, and incomplete reports for the first half of March indicate that even greater advances were made in that month. Spring fashion goods, air-expressed from style centers to all parts of the country in increasing quantity, are said to be accounting for a large proportion of the present gains. Analysis of February increases reveals that advertising materials, printed matter, motion picture and news film, shared with machine repair parts and valuable papers in supporting the heavy traffic gain over the air routes. Indicating that the railway express service is being used as a "feeder" system to the main transcontinental and trunk line air routes, the Express Agency states that a large proportion of air express shipments are handled either to or from off-air-line points in rail service.

1933 a Year of Innovations for British Railways

Trucks regulated and railway rate regulation eased during year—Good results from lower passenger fares and pooling

By C. E. R. Sherrington

Secretary, British Railway Research Service

THE year of 1933 proved one of exceptional importance for the British railways. Almost without exception their gross and net revenue figures have been steadily falling for over five years, but it would seem that 1933 will at least mark the turning of the tide that has been so long and eagerly awaited.

During the first half of the year, gross revenues continued to fall, but by the end of the fifty-second week practically all the losses had been recouped as the following figures show :

	Increase +	Decrease -	Increase +	Decrease -
	First 26 Weeks	Per Cent	52 Weeks	Per Cent
Passenger Train Traffic...	£420,000	-1.40	£332,000	+0.51
Merchandise & Minerals...	£1,417,000	-5.69	£572,500	+1.19
Coal, Coke & Patent Fuel...	£918,000	-5.95	£1,013,500	-3.35
Total	£2,755,000	-3.92	£109,000	-0.08

The above figures comprise only railway revenues proper and it may be that when the final figures for the year become available there will be some further reductions in the net derived from steamboats, docks, hotels and motor transport services, which form such an important feature of British railway gross revenues. In addition there may be reductions in the interest derived from invested funds.

On the other hand, it is reasonable to suppose that the savings in expenditure during the first half of the year, known to exceed £3,000,000, have at least been held intact if they have not been slightly increased for the whole twelve months' period. It should, however, be remembered that the figures of gross railway revenues for 1932 were abysmally low and fell short of the 1929 results by over £39,600,000, so that, though the tide of adversity has commenced to turn, the London, Midland & Scottish, London & North Eastern, Great Western and Southern railways still find themselves a long way off from any situation which would be termed prosperous. Nevertheless, the prospects for 1934, given freedom from labor troubles and no increase in the already chaotic condition of international trade, upon which the British railways so largely depend, are distinctly brighter. To some extent, economies resulting from the wholesale consolidation of the British lines into four groups may still be relied upon to make themselves felt, although this source of economy is becoming steadily of less importance as the years pass by. On the other hand, the benefits of standardization resulting from the above-mentioned national policy are continuing to fructify.

The year 1933 witnessed the approval by the Minister of Transport of the principle of pooling receipts from competitive traffic, both passenger and freight, and the economies expected from this source are beginning to make themselves felt in such matters as the reduction of competitive train mileage, competitive canvassing and the concentration of traffic on the most direct routes.

As a result of the passage into law of the London

Passenger Transport Act of 1933 and the formation of the publicly appointed London Passenger Transport Board to operate all the bus, coach and street car services, as well as the rapid transit electric railways within the London traffic area, there has been set up a pooling plan between the main line railways and the board, covering all the latter's transport operations, and all local passenger traffic within the London area on the lines of the former. Hence it can be claimed, in theory at any rate, that the policy of co-ordination is being carried out in the London area with its population of 9,000,000 or about one-fifth of the total population of Great Britain.

Rail and Highway Co-ordination Growing

The co-ordination of rail and road services has in fact been the key point of British railway endeavor dur-

WHERE DO THE ROAD TAXES GO?

Do you know that the tax on Motor Lorries was increased on the 1st January? Do you realise that the amount now paid in Road Taxes in Great Britain is 64 million pounds, equal to a penny in every shilling of the total national revenue?

Who pays the Road Taxes—the motor vehicle licence duty and the petrol tax? Directly, of course, they are paid by the owners of lorries, vans, cars, motor cycles, omnibuses and coaches. But, in the end, it is the whole Public that pays, since increased cost of transport and distribution of goods means an increased cost of living.

We speak of "Road Taxes"—but how much of them is spent on making and maintaining roads? The Chancellor of the Exchequer takes the bigger part, 40 million pounds, for general revenue, leaving only 24 millions for the roads. All road costs exceeding this sum must be paid out of local rates.

Why should the Road Transport Industry be called on to pay 40 million pounds for general Exchequer purposes? The Road Taxes are not a tax on a luxury, but on the transport of passengers and goods, which are necessities of living. And why, above all, should these taxes now be increased?

The explanation is simple. Road taxes are now being increased in order to hamper road transport and thus favour the Railways. The country's interests demand freedom from any legislation that will create a transport monopoly.

The object of the British Road Federation is to ensure that the Rail and the Road should each find its proper level, in fair competition; and that the Public should not be coerced in its legitimate choice of a mode of Transport.

This is the second of a series of notices issued by

THE BRITISH ROAD FEDERATION LTD.
for the protection of Road Transport

A Typical British Truck Propaganda Advertisement

ing the last five years and the four railways have made considerable use of the legislation which has been passed during this period.

In 1928 the Road Powers Acts were passed which permitted the railways to obtain a financial interest in road transport, to operate road vehicles for freight or passengers (except in the London Metropolitan Area for the latter), and carry traffic throughout by road, in contrast to their previous powers to utilize road transport for feeder services to the rail only.

The year 1930 saw the passage of the Road Traffic Act which, through the setting up of area traffic commissioners who were required to license all public passenger carrying services, has served to stabilize conditions

on the freight side had defied solution, but the Road and Rail Traffic Act passed last November attempts to achieve stabilization of freight services, or at least places the railways and the road operators on a more even plane of competition. Part I of the new act provides for the whole of the machinery of the new licensing system for the transport of freight by road and this came into operation on January 1, 1934, although the consideration of the applications will not be completed before July 1 this year. Inspection of motor trucks, as authorized by the act will not come into operation also for some months, but with the gradual granting of licenses for the different categories of road haulers, it is safe to claim that by the end of the present year some degree of stability will

Table A. Applications for Agreed Charges Under Road and Rail Traffic Act 1933

Number of Application	Date of Lodgment 1934	Railway Company	Person or Firm	Nature of Agreed Charge	Where available for inspection
1934, No. 1	Jan. 1st.	L. & N. E., L. M. & S., and Cheshire Lines Committee.	The Carborundum Co., Ltd., Trafford Park, Manchester.	Per ton. Emery wheels, abrasives, etc.	L. M. & S. Goods Office, Victoria Station, Manchester, Railway Clearing House, London.
1934, No. 2	Jan. 1st.	Southern	James Carter & Co. (Carter's Tested Seeds, Ltd.), Raynes Park, London.	Per ton. Fertilizers and seeds.	Raynes Park Goods Station, Railway Clearing House, London.
1934, No. 3	Jan. 1st.	G. W. & Southern	David Greig, Ltd., Waterloo Road, London.	Per ton. Groceries and provisions.	Railway Clearing House, London.
1934, No. 4	Jan. 1st.	L. M. & S.	Albert E. Jones, (Longton) Ltd., Stoke-on-Trent.	Per package China and earthenware.	Longton Goods Station, Railway Clearing House, London.
1934, No. 5	Jan. 1st.	L. & N. E.	Wiggins Teape and Alex Pirie (Sales), Aldgate, London.	Per ton. Paper for printing, etc.	Bucksburn Goods Station, Railway Clearing House, London.
1934, No. 6	Jan. 1st.	G. W., L. & N. E., L. M. & S., and Southern	The Chiswick Products Ltd., Chiswick, London.	Per ton. Varnishes, paints, polishes, dressings, etc., and tins, plates.	Port Talbot Goods Station, Railway Clearing House, London.
1934, No. 7	Jan. 1st.	Cheshire Lines Committee and L. M. & S.	John Horn (Stockport), Ltd., Stockport.	Per ton. Confectionery.	Heaton Norris Goods Station, Stockport, Railway Clearing House, London.
1934, No. 8	Jan. 1st.	L. N. & E., and L. M. & S.	John Patterson & Co., Ltd., Glasgow.	Per ton. Ammoniated liquid soap and ammonia solution.	Glasgow High Street Goods Station, Railway Clearing House, London.
1934, No. 9	Jan. 1st.	L. & N. E., and L. M. & S.	Acme Wringers, Ltd., Glasgow.	Per ton. Washing and wringing machines, etc.	Glasgow High Street Goods Station, Railway Clearing House, London.
1934, No. 10	Jan. 1st.	L. & N. E., and L. M. & S.	Wm. Collins, Son & Co., Ltd., Glasgow.	Per ton Books, magazines, papers, periodicals and stationery.	Glasgow High Street Goods Station, Railway Clearing House, London.
1934, No. 11	Jan. 1st.	G. W., L. & N. E., L. M. & S., and Southern.	Jeyes' Sanitary Compounds Co., Ltd., Plaistow, London.	Per ton. Disinfectants, soap, toilet paper, etc.	Railway Clearing House, London.
1934, No. 12	Jan. 1st.	L. & N. E.	T. G. Tickler & Co., Ltd., Grimsby.	Per ton. Jams, mincemeat, bottled goods, etc.	Grimsby Town Goods Station, Railway Clearing House, London.
1934, No. 13	Jan. 1st.	L. & N. E.	T. G. Tickler & Co., Ltd., Grimsby.	Per ton. Empty cases and jars returned to the firm.	Glasgow High Street Goods Station, Grimsby Town Goods Station, Railway Clearing House, London.
1934, No. 14	Jan. 1st.	L. & N. E.	The Enfield Highway Co-operative Society, Ltd., Enfield, Wash.	Per ton. Provisions, oil-cake, and chandlery.	Railway Clearing House, London.
1934, No. 15	Jan. 1st.	Southern	Spillers, Ltd., St. Mary Axe, London.	Per ton. Dog biscuits, bird seed and meals and husks for animal and poultry feeding.	Railway Clearing House, London.
1934, No. 16	Jan. 1st.	G. W.	Kearley & Tonge, Ltd., Mitre Square, London.	Per package. Cooked meats, brawn and sausages.	Railway Clearing House, London.
1934, No. 17	Jan. 1st.	L. & N. E.	Plant Bros., Ltd., Enfield, Middlesex.	Per package. Small furniture and garden furniture.	Railway Clearing House, London.
1934, No. 18	Jan. 1st.	G. W. and L. M. & S.	The B. S. A. Cycles, Ltd., Birmingham.	Per machine. Motor bicycles (complete).	Snow Hill Passenger Station, Birmingham, Railway Clearing House, London.

in regard to such services and lessen the degree of competition between road and rail.

The British railways have adopted the policy of acquiring important financial interests in the larger bus operating companies and nominating their representative to the various bus boards. It is known that about £9,000,000 has been invested in these various "allied" companies, and the return on the investment has averaged over 5 per cent, the Great Western Railway alone now has an interest in no fewer than 3,500 buses and coaches. Consequently it can be claimed that one important degree of co-ordination has been obtained so far as public passenger services by rail and road are concerned.

Until 1933, however, the problem of similar correla-

have become evident. The hours of rest prescribed for vehicle drivers came into force at the beginning of the year as also did the higher scale of motor vehicle taxation on certain classes of heavy motor trucks, this being regarded as a fiscal matter and being provided for in the Finance Act or National Budget introduced in 1933. The propaganda of the road haulage industry continues in the press, as may be seen from the reproduction herein of a typical advertisement.

Railways Given Greater Freedom in Rate-Making

Those clauses of the new Road and Rail Traffic Act which allow the railways greater freedom in regard to their charges came into force from the commencement

(Continued on page 580)

Economic Study of "AB" Freight Brake

Careful survey made by air brake experts to determine savings under different conditions

THE intensive operating conditions in railway freight service in recent years have clearly disclosed the necessity for radical improvements in the braking apparatus. After an extensive and prolonged series of laboratory and road tests the American Railway Association last year approved of new specifications for such apparatus, which were made effective for all cars built after September 1, 1933. The limitations of the "K" triple valve and the better results which can be secured with the "AB" brake, which meets satisfactorily these A.R.A. specifications, are such that it is expected that the "AB" equipment will also be applied to many freight cars when it becomes necessary to rebuild them.

In an effort to determine with a reasonable degree of accuracy the savings which can be made by the use of the "AB" brake, a committee consisting of the late H. M. Sperry; S. W. Dudley, Strathcona Professor of Mechanical Engineering at Yale University; C. C. Farmer, director of engineering, Westinghouse Air Brake Company; and L. K. Sillcox, vice-president of the New York Air Brake Company, spent several months last year preparing a report which explores this question in considerable detail.

It was possible to determine the savings in some items with considerable accuracy. In others, where only a limited amount of data were available, the committee took a conservative position in arriving at its final estimates. The report goes into great detail, but only the rough outline of the material will be considered in this article.

Large Savings Possible

The "AB" brake interchanges with the "K" equipment. While, naturally, it will give the best results when all the cars in a train are equipped with it, it fully justifies its use on single cars. The savings for mixed trains will, however, increase as the proportion of cars in a train fitted with "AB" brakes increases.

The committee in its studies determined first the extent of the savings which could be made on a single car basis, and, second, the additional savings which could be made if all of the cars in a train are equipped with the new brake. It also gave consideration to instances in which the "AB" brake would replace the "K" equipment on existing cars, in one case considering a complete change-over, in which only those items are retained on the existing cars which are common to the standard "K" equipment, such, for instance, as the pressure retaining valve, the $1\frac{1}{4}$ -in. angle cock, and the $1\frac{3}{8}$ -in. by 22-in. hose with EP-5 coupling and $1\frac{1}{4}$ -in. nipple. In another instance it considered a partial change-over, in which only the "AB" control valve, reservoir and brake cylinder would be applied, retaining the former improved branch pipe tee and the combined dirt collector and cut-out cock, as well as the other features mentioned above.

On new cars, only the increased cost of the "AB" equipment over the "K" equipment was considered, since the latter equipment has been required as a standard. Assuming that all cars in the train are equipped with the "AB," the committee's report estimates a saving per annum of 25.96 per cent on the increased investment.

More explicitly, a total net additional investment of \$71,800 in installing the "AB" equipment on 1,000 cars, would result in a net annual saving of \$18,642; this after allowing for additional annual reserve necessary to effect major repairs of the "AB" valve after a service life of 30 years and after allowing for interest on the net additional initial investment.

Where the "AB" equipment is used only partially in the train, the committee considered only the savings on the individual cars fitted with this brake, the percentage of return on the net additional investment per year amounting, in this case, to 12.57 per cent. The annual percentage of saving based on net costs is, of course, less where the "K" equipment on the rebuilt cars is scrapped and replaced by the "AB," although it still amounts to a considerable item.

Six Important Items of Saving

Six important items of saving will accrue immediately in proportion to the number of cars equipped, and irrespective of the length of the train in which "AB" equipped cars are handled. The "AB" equipment, for instance, has been designed for economical maintenance and the protective devices which have been provided to exclude foreign substances will extend the interval between cleanings to 36 months, or longer. The present "K" brake has a fixed cleaning date not to exceed 15 months, so that considerable savings will be effected in this respect.

Again, the positive action of the "AB" equipment in all phases of operation will practically eliminate interruption of train schedules and yard movements by reason of uncertain brake action, and thus will avoid the present expense of the cars being condemned from train service because of this.

The promptness and certainty of the release of the "AB" valve practically eliminates stuck brakes, thus effecting a marked saving in slid flat wheels.

The uniformity of brake cylinder pressure developed during either service or emergency applications, the increased number of instances where retainers are unnecessary, and the more general use of retaining valves where grade conditions demand their use, results in the uniform distribution of braking effort throughout the train under all conditions. This materially reduces destructive overheating and consequent abnormal wear of brake shoes and wheels.

The use of reinforced fittings on the various new parts of the "AB" equipment, together with the improved means for anchoring the branch pipe tee to the car underframe, will practically eliminate maintenance expense now chargeable to leaky and broken pipes.

The extension of the cleaning date and the more dependable operation of the new equipment make a higher percentage of the cars available at all times. This means that there are either less cars required to handle the same business, or more cars are available to carry peak loads.

Other Savings If All Cars Are Equipped with New Brakes

All of the above items cause savings in operating and maintenance costs, in direct proportion to the number

of cars that are equipped with the "AB" brake. Other savings which will be effective when all of the cars in a train are equipped with the "AB" brake include the following:

Saving in operating cost through reducing the brake system leakage; savings from reduction in claims for loss and damage to lading, and also for damage to the cars, exclusive of that caused by wrecks, but incurred by rough handling due to brake and slack action; reduction in property damage because of the smaller number of accidents caused by inadequate brake functioning; saving in the cost of damage awards, and legal expense incident thereto, because of fewer personal injuries and deaths.

There will also be other savings in operating costs, such, for instance, as the possibility of making slow-down applications without the risk of stopping; also those resulting from a reduction in the number of cases of train delays, parted trains, etc., caused by failure of brakes to release, or other improper brake action; reduced delay in starting after a service stop; reduced delay in starting after an emergency stop, or after a train has been purposely separated at crossings, or for taking water, or making repairs to train line connections, etc.; also the possibility of safely handling heavier tonnage trains at higher schedule speeds under modern level road, and also descending grade, operating conditions.

An appendix to the report includes a recent study for a specific railroad of the increase in speed limit allowable by the use of the "AB" brake equipment. This shows that the potential possibility of the new brake in increasing the terminal to terminal speed lies in the elimination of the delays, "meets" and unnecessary stops occasioned by fundamental limitations of the "K" equipment, rather than in making possible an increase in maximum speed.

A Shock-Absorbing Side Bearing

(Continued from page 574)

tened, slightly extending the length of the base plate, and, therefore, deflecting the truss springs. In other words, the movement of the car body in rolling is resisted by the combined spring action of the arched spring plate and the two truss springs, the motion being definitely stopped by a limit block cast on the base plate.

With this type of side bearing, clearance is unnecessary, and maximum flexibility is secured with the total elimination of noise and shock. Other advantages are the reduction of frictional area from 52 sq. in. for the standard bearing to one sq. in. maximum for the RPCO bearing, with consequent reduction in friction. Ease of assembling or dismantling is assured, also the avoidance of frequent side-bearing adjustment and repair. Shocks usually transmitted from rail and rail joints through the body side bearing are absorbed and additional cushioning provided for truck and body parts. Should any part of this side-bearing break for any reason, the car would ride safely, as the limit block is the highest point in the assembly after the arched spring plate is removed, and the car would ride on the limit block.

The way this side bearing is designed to operate with a car on curves is as follows: When the car is nosing into a curve, the centrifugal force moves it over onto the side bearing, which is on the outside of the curve. This swings the car off the center line of the rails, due to the swing hanger arrangement of the truck, producing a greater load on this side of the truck (which is desirable) and thereby preventing the wheels on this

side from climbing the rails. The flexible side bearing aids this condition by placing an additional load on this side of the truck until the car has reached the banked portion of rail when it aids in gently but flexibly moving the car body over towards the inside of the curve. When the car comes out of the curve, the side bearing aids in straightening out the car, and any shocks due to irregularities in the rail, rail joints, sticking journal boxes, eccentric or out-of-round wheels, etc., are flexibly cushioned on curves as well as on straight track.

1933 a Year of Innovations for British Railways

(Continued from page 578)

of 1934. It will be remembered that under the new act the railways are permitted to charge "agreed rates" with the shipper, provided such rates have the approval of the Railway Rates Tribunal and on the condition that any opposition by other shippers who feel their interests prejudiced shall be the subject of a hearing by that Tribunal. Table A reproduces the public notice of the first 18 of these rates as published in the press during the first week in January, 1934. This section of the list contained 37 proposed agreed rates, mostly based on the ton, though a few are calculated on a per package or per machine basis. There is little question but that this section of the act will be of considerable importance in assisting the railways to regain some of their lost traffic.

Recent legislation is not the only form of assistance from which the railways have derived aid, because they put into operation as from May 1, 1933, "Summer" tickets which were available by practically every train and available for a month, being virtually free of the many restrictions attached to the previously existing forms of low-rate tickets. These so-called "Summer" tickets were round-trip tickets with a fare of 2 cents per mile, in place of the ordinary standard fare of 3 cents per mile. The results proved sufficiently satisfactory to warrant the continuation of the issue of such tickets throughout the fall and more recently they have been extended for the whole of 1934.

When the annual reports of the companies become available, the analysis of the passenger journeys and the receipts derived therefrom should prove an interesting study.

An important landmark in the co-ordination of rail and road freight services took place during the late fall, when the four railways took over the share capital of the two great road transport concerns, Messrs. Pickford's and Carter Paterson's. This development should eliminate much duplicate and competitive service in city areas and should help somewhat to ease street congestion. In addition the use of unit freight containers has shown considerable progress and the railways have under construction large numbers of new units of various types.

It will be seen that 1933, so far as the British railways were concerned, is likely to be regarded in coming years as a period of important landmarks, and on the whole the prospects for 1934 are slightly more favorable than for the years which have just passed. However, the prospects for the shareholders must inevitably rest mainly on the continued revival of internal and international trade and, so far as the latter is concerned, the position is still far from attaining any degree of stability or clarity.

Labor Bill Opposed by Carriers

Suggestion made that prohibitions against coercion should apply to unions as well as roads

WASHINGTON, D. C.

VIGOROUS opposition to the bill proposed by Coordinator Eastman, as a revision of one drafted by the Railway Labor Executives' Association to amend the railway labor act of 1926 by providing for the establishment of a National Board of Adjustment and in other ways, was expressed by representatives of the carriers at the hearing before the Senate committee on interstate commerce on April 12. M. W. Clement, vice-president of the Pennsylvania, appearing as chairman of a committee representing the Class I railroads, told the committee that the whole tendency of the bill is to draw a direct line of cleavage between employees and the carriers which, he said, "defeats the whole purpose of the railway labor act and reverts to a theory of unionism that has become antiquated." In place of the provisions of the bill he proposed some fairly simple amendments to the present law, including provision for the creation of four regional boards of adjustment, with power to make compulsory decisions, and system or craft boards where desirable.

Mr. Clement particularly objected to the sections of the bill providing for a national board and intended to prohibit railroads from exercising any "influence" on so-called "company unions," but if the latter provisions are to be retained, he said, the language should be changed to make it apply to "dominating" influence, interference, or coercion and he proposed amendments in various parts of the bill to make prohibitions against influence or coercion apply to the labor organizations as well as to the carriers.

Throughout the bill, Mr. Clements said, "is a spirit of compulsion that men must join certain unions and if they do not join these unions, they are denied representation." If the carriers wanted to drive the organizations off the railroads, he said, they could no better do it than by seeking legislation to compel the men to join.

W. L. White, president of the American Short Line Railroad Association, asked that independent railroads, 100 miles or less in length, be exempted, and George A. Kelley, general solicitor of the Pullman Company, expressed general accord with the statement made by Mr. Clement.

Statement by M. W. Clement

After stating that he officially represented the Class I roads, Mr. Clement said that "at heart I am also speaking for a million railroad employees in the United States," and in summing up his statement he said that "the railway labor act of 1926, with certain modifications, is nearly a perfect bill for the settlement of major troubles between men and management." To include in it only those things necessary to make the law compulsory in the spirit in which it was originally written and correct the two recognized defects, he said, all that is necessary is to change Section 3 of the law to provide for regional boards and make certain minor modifications in the section relating to the Board of Mediation. "If this course is adopted, I cannot help but feel that you will insure men complete freedom of action in all ways, for collective bargaining, and concurrently assure to them

prompt, equitable settlement of disputes and assure the country against any interruption to commerce or to the operation of the carriers."

Mr. Clement furnished to the committee a carefully prepared statement suggesting and explaining specific amendments to the bill proposed by Mr. Eastman and also a copy of the present act with the changes he would suggest. He said that eight years ago neither side wanted compulsion, but that now both are willing to have this element introduced, recognizing that, on certain railroads, men and management have not observed the spirit of the law, and failure of the law to provide machinery for the prompt disposal of matters in controversy referred to the boards that became deadlocked. Men and management felt, he said, that if they could sit down together, discuss their common problems and prepare an act together that would cover the situation as they saw it, it would go a long way to solve their difficulties and bring industrial peace, and the act has functioned effectively for eight years.

Suggests Revisions in Present Law

The language in the bill relating to the right of employees to join or not to join a union he proposed to rewrite as follows:

"No carrier, its officers or agents, shall deny or in any way question the right of any or all of its employees to join, organize or assist in organizing any labor organization or group of employees he or they choose to join, organize, or assist in organizing, and it shall be unlawful for any person, corporation, or organization to interfere in any way with the organization of the employees of a carrier or for any carrier to use funds of the carrier in maintaining any labor organization or for any persons, organization or corporation to use dominating influence or coerce employees in an effort to induce them to join or remain or not to join or remain members of any labor organization, or to deduct from the wages of employees any dues, fees, assessments, or other contributions payable to members of labor organizations, or to collect or to assist in the collection of any such dues, fees, assessments, or other contributions."

As to that section of the paragraph which prohibits the use of funds of the carriers he said:

"The law should be so written that nothing contained therein shall be construed so as to prohibit a carrier from according its employees compensation for time spent and expenses actually incurred in settling disputes growing out of grievances or out of the interpretation or application of agreements governing rates of pay, rules and working conditions when agreements therefor are entered into between such a carrier and its employees. When the principle is stretched so far as it is in this bill it reaches into a very broad field of contracts between carriers and employees. Practically all railroads of the country allow their employees, on company time, to handle their grievances up to the foremen, master mechanic or superintendent.

"If this application is carried out literally, as we interpret it, it would be impossible for anyone to handle grievances on company time, and this is not only going to

bring dissatisfaction to the men, but is going to add tremendously to the cost of organization, unionization or collective bargaining, and we believe it is a mistake to penalize men to this extent to accomplish some of the things which it is intended to accomplish by this bill. It will upset practices of long standing in this respect between men and management.

"As to that section which prohibits 'performing any work therefor'; part of the peace under the railway labor act in the last eight years has been in the co-operation between management and the general chairmen of the organizations. The general chairmen ask many of these managements to do work for them in connection with their correspondence, getting out circulars or things of that sort,—a relationship which it is desirable to continue. Such courtesies are prohibited under this bill.

"In my judgment, this section as a whole conceals in it the possibility of promotion of much discord. By far the great majority of cases between men and management are adjusted on the ground, between the officer and the men, both paid by the company, the grievances being thus settled before becoming major issues.

"The destruction of this contact will have the effect of making all these minor things matters of major issue and thereby defeats the very purpose of the act—that management and employees shall exert every reasonable effort to dispose of their differences.

"Considering this part of the act in connection with the penalty features later on, I do not believe that anyone except those who have lived through this all their lives can fully realize the effect it will have. When you come to the sociological features of the relations between men and management, which are so closely interwoven with their working lives, this thing gets into many ramifications of employee relations involving relief for accidents, and other matters in the everyday social side of the men's existence which contact is between the individual and the management, and not between him and the organizations. These things are all related and we believe it is a serious thing, to the men, to break this contact between them and management."

Urging complete elimination of the provision for a National Board of Adjustment, Mr. Clement continued:

Objections to National Board of Adjustment

The carriers believe that a National Board of Adjustment as proposed in this bill will not accomplish what the act has set out to accomplish. The Co-ordinator in discussing a National Board of Adjustment, says he is "not unduly sanguine" as to its working. Management is sanguine it will not work. As this is the crux of the bill, it is unfortunate that any machinery should be set up to which there is attached any doubt. Management is positive that regional boards can be made to work satisfactorily and efficiently and thousands of organized employees share this view. Management is equally positive that this national board, as set up, will not work successfully. It will not be satisfactory to the carriers, it will be far less satisfactory to the men, it will not be satisfactory to the organizations and the results obtained therefrom will not be satisfactory to the public.

Men and management are agreed that what they want is compulsory, prompt and equitable settlement of disputes. How is this best arrived at? None of the things proposed in this bill are new. We have had national boards, both in the boards of adjustment during the government administration of railroads and in the United States Labor Board. We have had regional boards. We have had system boards. We have had President's emergency boards, and we have had arbitration boards.

The result of past experience is that the farther away from the property you go, the less satisfaction is brought to men, management and the organizations. As is well known, the United States Labor Board was unsatisfactory from the standpoint of the organizations, of men and of management. Despite the fact that neither men nor management submitted any cases to this board during the last three or four months of its existence, it nevertheless turned back some 500 cases unsettled at the time of its dissolution.

The Co-ordinator recommends that the experiment be tried. We do not believe that an experiment that has been tried in the

past and found lacking should be tried again at the expense of the men. In other words, it is not right to jeopardize the rights of the employees by making an experiment which has been attempted before and which has failed.

Based on a computation made by eastern region carriers, 75 per cent of all grievances between employees and management have to do with local conditions on a particular carrier, or part of a carrier, under the working conditions that apply to that section, and it is impossible for any one national board or division thereof to be familiar with the different methods and practices in effect on all Class I railroads of the country.

The very set-up of a national board predestines it to failure. Board No. 2, for instance, has five members representing six major crafts of employees and some minor crafts, so that by the very nature of the thing there will be, for example, only one machinist from one section of the country representing all machinists from all sections of the country. Some crafts will not be represented at all and a man without representation or without proper representation cannot have satisfaction. Moving to Board No. 3, consisting of maintenance-of-way labor, clerks, telegraph operators, dispatchers, signalmen and sleeping car conductors, there are brought together six classes of employees between which there are practically no common working relations in the railroad field. There is in that group one craft not represented. And, for example, all the affairs of all the clerks in the United States, a group numbering about 150,000, will be placed in the hands of but one representative. It will put all the affairs of the maintenance-of-way labor, irrespective of climatic and racial conditions, in the hands of one man.

These things are not going to produce decisions or adjustments satisfactory to the employees. If you could fully realize the overlapping of some of these crafts in the various groups and the jealousies that at times exist between them, then you could understand that the proposed amendments to this act merely set up machinery that will defeat the very purpose for which the act was intended. You must recognize that there is a certain pride in all these crafts and the very idea of this thing is, to them, repugnant to justice.

The whole intent of the board of adjustment is to bring prompt, equitable, just and final decisions. We agree that conclusiveness should be a part of any act. Promptness is necessary from the point of view of the men, and it should be the very foundation of the act. Based on past experience, experiments and practices, decisions that are equitable, just, prompt and conclusive can be secured in 90 days from system boards. It will be a matter of months in regional boards, and it will extend into years in national boards. I predict that if Congress gives to these men a national board for the settlement of their disputes, the board will not survive and men and carriers will be back here again as we have been in the past, seeking new machinery.

Therefore, based on past performance and experience, the railroads recommend an amendment to this portion of the bill; the amendment we propose will create regional boards, with compulsory decisions, prompt and equitable settlement of grievances, and provision for system boards or craft boards where desirable.

Men and management are agreed that there shall be an unbiased, efficient board required to promptly adjust and dispose of controversies between the parties. We feel this is provided for in our proposed amendment.

Summed up, the proposed amendments to the labor act deprive men of rights granted in the fore part of the bill, in that the first part stipulates that men shall have freedom to join organizations of their choice for collective bargaining, and unless they happen to choose one of the organizations enumerated, they are deprived of the right of representation.

The amendments as proposed, creating a National Board of Adjustment, provide everything by statute, leaving no room for negotiation between organizations, men and management. The amendments we propose give to these organizations, men and management that right. It is a right that should be the heart of all management and labor relations.

Unionization Features of the Bill

Now, I come to a portion of my discussion in connection with this bill which I very much hesitate to approach for fear it might be misunderstood. That is, the unionization features of the bill.

No railroad is objecting to a man joining a union; we believe that union should be the union of his choice; we believe a man's union affiliation should be treated exactly as his religion or his politics, it is a matter of personal privilege and not a condition of employment. Management has no desire to destroy unions. Unions have no desire to destroy railroads. Together and severally, they both have an obligation to the employees. But, above either is the right of the employee.

We believe that the railroads must, in their dealings with their men readjust themselves, from time to time, to meet the progress of the development of employee and management rela-

tions. We also believe that the unions, from time to time, have got to readjust themselves to meet the necessities of the men as brought about by changing conditions. If management does not readjust, the conditions of employment may become unbearable. If the unions do not readjust, the conditions of membership may become intolerable.

We do not believe legislation is necessary to make men join unions. There are unions on these roads today, strongly and efficiently managed; through their statesmanship and ability to serve, they have an undivided front of practically all the men in their class; they have never sought statutes to force men into their organizations. Therefore, the only thing necessary to get men into an organization is to see that the organization is well managed. Any effort to compel a man to join an organization is an affront to civil liberty.

Throughout this bill, worded in here and worded in there, is a contrary spirit, a spirit of compulsion that men must join certain unions and if they do not join those unions, they are denied representation. This is no new experiment; it has been tried before and tried disastrously to these very same organizations. If the carriers were of a mind to drive these organizations off the railroads, they could no better do it than seek through Congress a statute to compel the men to join. Now it may appear strange that the carriers may be, in a way, pleading for these same organizations, when there is here an opportunity for the carriers to do them serious harm. All of the carriers went through the days of the Railroad Administration and the conditions that existed in those days with all classes and all grades being led by the hand of government into these organizations, resulting generally in demoralization of the railroad workers of the United States, and eventually leading to a revulsion of feeling that almost destroyed some of these organizations. And, that is what is anticipated will result from this legislation.

Out of all the cases of demoralization, of dissatisfaction, of strikes, of discontent, from around 1918 to 1922, a common point of view came to organization leaders and railroad managements, each recognizing the rights of the other,—but, above all, the greater rights of the men—they came together and prepared the Railway Labor Act of 1926. Never in modern times has there been such peace, such contentment, so little strife in any one industry, as has existed in the transportation field in these past eight years. Taking cognizance of the fact that these relations have endured and carried through the greatest depression of modern civilization, it is a tribute to the cooperation which brought this thing about. The records will show that there have been no strikes of moment since the passage of the Railway Labor Act.

There has been less wage reduction in the transportation field than in any other big industrial field during the depression. Employment held up as well or better in the railroad industry than in any of the other major basic industries. There was a sincere effort throughout this depression in the transportation industry to divide work, to satisfy employment, to protect the older men, with a strict observance of seniority and of the rules and regulations. This may be because the railroad employees are the finest body of men in America, but we believe no small part of it has been due to the statesmanship of the leaders of the men working with management. It should not be possible to knowingly destroy these conditions by making amendments to this act, impelled by the temporary influences that have come out of the depression, without relation of the hindsight that should come from the past, nor with foresight for the future. We do not believe that these proposals are advantageous to unionism nor to the national unions themselves. We know they are not advantageous to the employees, and a thing that is not advantageous to the employees cannot help but bring a reaction against them in the end; and, by reacting against them, it reacts against the efficiency of management and service to the public.

The only difference between the Railway Labor Act of 1926 and these amendments as proposed—outside of the adjustment features desired by the men—is the skillful wording into section after section, or the introduction of new sections, to bring about a cleavage between men and management through compulsory unionism,—compulsory only so far as certain particular unions are concerned.

Any American citizen who is an employee of one of the railroads of the United States has certain inalienable rights. His labor union affiliations are personal prerogatives and they should not be a condition to employment or non-employment, nor should they—under any consideration—be made so by legislation.

Railroad management as a whole believe in collective bargaining. We believe that the railroad employees should have the absolute right to select their own representatives for dealing with their managements. We just as firmly believe that the railroad employees should have the freedom to select, without coercion—either from management or from any organization whatsoever—whom they wish as their representatives.

We further believe that the government should not, by coercion or insistence, force upon the men some system of representation that they themselves do not want.

The whole tendency of the bill is to draw a direct line of cleavage between employees and the carriers. To make a cleavage between men and the carriers, defeats the whole purpose of the Railway Labor Act, and reverts to a theory of unionism that has become antiquated.

Mr. White told the committee that this bill, by reason of its many drastic provisions, would create strife on the short line railroads where none now exists, and that none of the alleged evils which the bill seeks to correct exist on the short lines.

"A very brief description of the short line railroads will demonstrate to you both the necessity and the desirability for their exemption from the provisions of this act," he said. "The short line railroads are, for the most part, community affairs, very local in their nature, and the management and employees are neighbors and friends. They work together harmoniously and co-operatively for the common good of themselves and the communities dependent upon these lines for transportation service. During the depression the managements of the short line railroads have done everything possible to keep their employees at work. A man on a short line railroad may be an engineer in the morning, and a boiler-maker or mechanic working in the shops in the afternoon. Another man may fire the locomotive in the morning, and work as a section hand in the afternoon. This is done in order that they may be employed as much as possible, and at the same time permit the railroad to earn enough money to keep it in existence, so that the employees will not be thrown entirely out of work. So far as the short line railroads are concerned, this legislation is the potential source of a great deal of friction, while there are no conditions on these roads which demand remedying by such legislation."

Mr. Kelley described the plan of employee representation adopted by Pullman employees in 1921 at elections conducted by them by secret ballot which now extends through all classes of employees, saying that the plan complies both in letter and spirit with the railway labor act and that there has not been a major dispute since it was adopted. He said that the company deals with its employees through representatives chosen by themselves without any discrimination by reason of membership or non-membership in any organization. About two-thirds of the sleeping car conductors are members of the Order of Sleeping Car Conductors, which is a member of the Railway Labor Executives' Association and there is a separate board of adjustment for them. He did not know whether any of the porters are members of the Brotherhood of Sleeping Car Porters, but said that about 94 per cent of them vote under the employee representation plan. The company pays all the expenses of the plan. He said he thought the effect of the bill would be to deprive many employees who do not want to join standard unions of any representation because the bill makes no provision for such men.

The committee expected to hear Co-ordinator Eastman again and Samuel E. Winslow, chairman of the United States Board of Mediation, later in the week.

THE SOUTH AUSTRALIAN GOVERNMENT RAILWAYS, for the year ending June 30, 1933, reduced their deficit after interest charges by 24 per cent as compared with the year ending June 30, 1932. The operating ratio was 72.4 as compared with 77.8 in the previous year, and thus the 1932-33 surplus available for interest charges was £758,574 as compared with a 1931-32 figure of £612,337. The report, comparing the 1932-33 results with those for 1929-30, shows that over this four-year period revenues have dropped 16.8 per cent, operating expenses have been reduced 44.2 per cent and the deficit after interest charges has decreased by 61.7 per cent.

Communications and Books...

"Orthodox" Economics and the New Deal

TORONTO, ONT.

To THE EDITOR:

Your editorials in the *Railway Age* are very heartily appreciated and if there is a reasonable dissemination of those views which are contained in a recent issue concerning orthodox economics it would be a very great help to a lot of people whose thinking now is very much distorted. We hope that the regime of the President and his director of the N.R.A. will very soon be entirely remodeled. If they are not, I do not know what is before the country.

W. T. JACKMAN,
Professor of Transportation
University of Toronto

The Boy Scouts And The Railroads

PATERSON, N. J.

To THE EDITOR:

I was very much interested in the letter from C. E. Fisher, which appeared on page 299 of the *Railway Age* of February 24.

I am the Scoutmaster of a Troop of 60 boys of 12 to 17 years of age. Virtually all of them come from homes where there is at least one automobile and all of them have traveled through the eastern states. I was surprised to find that some of them had never ridden on a train more than a short distance and that most of them had never been inside a Pullman car or diner. Yet within a few years these boys will be in college and holding key positions in business. They will not be railroad patrons unless someone changes their viewpoints.

Railroad model shows have strong appeals, but the one in New York is so crowded that it loses most of its appeal. The exhibits at the Chicago Fair and at the Science Museum in New York appeal very strongly.

A railroad film exhibited in a portable moving picture machine, by a railroad representative who knows how to talk to boys would be very welcome at Scout Troop meetings and also, I am sure, at schools. Don't overlook the Girl Scout troops—this is a distinct organization.

Trips through railroad shops and terminals and exhibition trains would be interesting.

I am sure you know that several railroads, particularly the Missouri Pacific, were active supporters of Scout work at one time, though how much is now being done, I do not know.

A. H. DURIEUX.

New Books

Railroad Mergers, by John Will Chapman. 157 pages, 9 in. by 6 in. Bound in cloth. Illustrated. Published by the Simmons-Boardman Publishing Company, 30 Church Street, New York. Price, \$3.

This book deals with the causes, methods of effecting, and results of railroad mergers, it being the author's hope that his survey may be useful chiefly "in stimulating the reader's interest and thought concerning the many different aspects of consolidation problems rather than simply providing him with definitely stated conclusions." Opening with an historical survey of the question, which includes a discussion of advantages and disadvantages of mergers effected prior to 1920, the book proceeds next to a consideration of the railroad merger problem under the Transportation Act. Attention is there given to such questions, among others, as the maintenance of competition, maintenance of existing routes and channels of trade, valuation and the relation between consolidations and unification. Other chapters discuss, in turn, such special merger problems as holding companies, short lines, minority stockholders, and recapture; the 1920-1933 merger record; operating and financial problems of future mergers; and procedural and legislative problems.

The book is especially valuable in that it brings together in one compilation the pertinent information and data on various pending consolidation proposals; it is well-illustrated with maps of various proposed systems, including a large map showing on one sheet, but individually, the groupings involved in the consolidation plan promulgated by the Interstate Commerce Commission in December, 1929. Also, the text is supplemented by a complete series of conveniently-arranged appendices.

The Motor Truck Red Book and Directory, edited by F. Leslie Jacobus. 725 pages, 10 1/4 in. by 8 in. Bound in cloth. Published by the Traffic Publishing Company, Inc., New York. Price \$10.

Because this is perhaps the most comprehensive assembly of data on motor transportation thus far attempted, it is unfortunate that the editors, not content with their fine job of compiling a complete work of reference, saw fit also to intersperse here and there bits of special pleading on current taxation and transport controversies.

Lifting at random a few of these editorialized pronouncements, there is, first, a statement to the effect that, among other properly listed advantages, shippers are attracted to motor truck transportation because of its "low cost." Undoubtedly the low rates do attract shippers, but the cost of a highway service is a figure entirely different from any motor truck rate and is paid in part by the general taxpayer. Then, there are statistical comparisons to indicate, among other things, that "statements to the effect that business using motor transportation is subsidized by the general public to the extent that highways are used without payment of a reasonable amount toward their building and upkeep, are contrary to fact." This, despite the fact that it has been shown time and again that highway transport pays no net taxes; that is to say, a sum greater than all moneys collected from highway users is expended to provide facilities for their use. Next, without reference to the fact that the gasoline tax, computed on a ton-mile basis, is a greater burden on small than on large vehicles, comes, with considerable finality, the finding that "the gasoline tax is probably the fairest possible way to tax the highway vehicles because it measures quite accurately the use made of the road by each vehicle, and also the heavier vehicles use more gasoline than the lighter ones." Finally, there are profuse quotations from pronouncements of Thomas H. MacDonald, chief of the U. S. Bureau of Public Roads, who, as *Railway Age* has pointed out and substantiated many times, is prejudiced in favor of truck transportation. Among these is the section setting forth the Bureau of Public Roads' idea of what highway thickness is required for heavy trucks. Perhaps the justification for this is the "official" nature of the MacDonald promulgations, but they are no more "official" than those of Charles F. Marvin, engineer for the U. S. Bureau of Standards, whose views, like those of other competent engineers who have studied the subject, differ widely from those of Mr. MacDonald.

It might be said in connection with the foregoing that the book is concerned with motor transport; even so, one is nevertheless somewhat startled to run across such ex parte pronouncements in a reference book. If such matters are touched upon at all it would seem proper to present both sides for the benefit of the searcher for fact.

If, on the other hand, the user remains on his guard against accepting these "editorials" as last words on the subjects which they discuss, he will find the book otherwise a valuable work of reference. It contains much information on the operation of trucks, touching upon such subjects as supervision, costs, selection of vehicles, accounting, insurance, terminals, etc. It also covers the business side of trucking in its sections on traffic management, rates, tariffs, shipping documents, co-ordination with railroads, and rail and truck rates. Included also are summaries of state motor transport regulatory laws and administrative regulations, and of Supreme Court decisions. Finally, there are sample forms used by truck operators and a directory of over 1,000 motor truck carriers, giving their names and points which they regularly serve. The book is a companion volume to the Freight Traffic Red Book and the plan of the publishers is to bring out a revised and up-to-date issue each year.

NEWS

Durable Goods Committee Asks Securities Act Change

Demand liberalization at the present session so that needed capital can be obtained

A demand that Congress at this session amend and liberalize the securities act of 1933 so that durable goods industries can immediately obtain new and needed capital and permanently re-employ many million skilled men was voiced by the Committee on Durable Goods Industries in a statement addressed to all code authorities and code committees all over the United States as well as to the members represented. This follows an intensive study of all problems of permanent recovery since the committee was appointed March 9.

Among other things discovered by this committee is that in the United States since depression came only 4 per cent of new capital has been obtained for the making of durable goods while in Great Britain new capital for the same industries has arisen to 54 per cent. The committee said it had also definitely discovered that with new capital insured for these industries between five and six million persons now unemployed in these industries can be permanently re-employed. Without amendment to the Securities Act of 1933 at this session of Congress the committee agrees unanimously that any recovery is only temporary and not permanent. The members of the committee who attended the meeting on April 12 and unanimously agreed on this action were: George H. Houston, president of the Baldwin Locomotive Works, chairman; C. R. Messinger, George P. Torrance, Lewis H. Brown, Harry S. Kimball and Walter J. Kohler. The other members of the committee of 16 had all been notified of the decision and will also support the plan.

"In the month that the committee has been functioning and making a scientific and intensive analysis of the entire recovery program they have found some startling by-products of the federal program," according to the statement, as follows:

The federal government now owns over one fourth of the preferred stocks of all banks.

"Through federal relief agencies the United States government will soon hold the majority of mortgages on homes and farms.

Pending legislation in both houses of Congress indicates that all communications will be controlled by a federal commission.

Federal relief and loans to railroads long under government control more and

Where Safety Fails

The deadly accident on Route 20 near North Ridgeville is another tragic reminder that we still have a long way to go in highway safety.

Proper investigation may fix the responsibility for this catastrophe. But it won't restore the dead and it can bring but small comfort to the injured.

The point is that such accidents should not happen. Busses now carry millions of Americans yearly. They have taken a large part of the passenger traffic away from railroads. So far they have not attained anywhere near the safety of railroads. Possibly they cannot from the nature of their operation. There are obviously more opportunities for collision on a busy highway than on the protected railroad right of way. The more need, therefore, for increasing vigilance that every safety requirement is met by all who use the highways. Federal regulation of both interstate trucks and busses may help to reduce the accident toll.

From the Cleveland (Ohio) Plain Dealer

more indicates that the interstate carriers will ultimately be entirely federal controlled and operated within a few years."

Southern Roads Protest New Georgia Rates

The 33 leading railroads of Georgia have joined in a petition to the Federal Court, at Atlanta, for an injunction against the enforcement of tariffs calling for a general reduction in freight rates, which the Public Service Commission of the state proposes to put into effect on May 1.

Railroad Responsibility for Mail

The House committee on post offices and post roads has reported to the House a bill, H.R. 7392, to authorize the Post Office Department to hold railroad companies responsible in damages for the loss, rifling, damage, wrong delivery, depredation upon, or other mistreatment of mail matter due to fault or negligence of the railroad company or any agent or employee thereof.

Valuation Order Requirements Reduced

The Interstate Commerce Commission, Division 1, has issued an order revising Section 17 of Valuation Order No. 3 so that in the reports made by the railroads the distribution of roadway completion reports of aggregate cost between labor and materials and the separate stating of all estimated costs when so computed by the carrier is no longer necessary.

Passenger Fare Hearing Announced by I.C.C.

Regulatory body now confronted with problem of how far cuts, which it has urged, should go

After long urging the reduction of passenger fares so as to regain lost traffic, the Interstate Commerce Commission, now that the southern and western lines are seriously engaged in experiments in that direction, is confronted with the problem as to how far the reductions ought to go, especially in view of the efforts of the bus operators, since the competition has become rather hot for them, to bring about an agreement for the maintenance of minimum rates in the Southeast. The matter is brought before the commission at this time by reason of the fact that reduced experimental passenger fares now in effect in western and southern territories are scheduled to expire on May 31 next. These reduced fares are on varying bases, but generally for parlor and sleeping car service are 3 cents a mile, and for coach service are in western territory 2 cents a mile, and in southern territory 1½ cents. Western and southern carriers have announced their desire to continue the existing sleeping and parlor car fares for a further period commencing June 1; western carriers desire to continue their present coach fares; all roads in southern territory except the Southern desire to make effective on June 1 the same basis of coach fares now applicable in the west, 2 cents a mile; and the Southern desires to continue the present coach fares. Various applications for relief from provisions of sections 4 and 6 of the interstate commerce act, have been filed by the western and southern carriers to enable the proposed extensions and changes in fares to be made effective.

Protests against continuation of the present coach fares in southern territory have been made by operators of motor coaches through the Administrator of the National Recovery Administration. Representations have been made to the commission that continuation of the existing coach fares in southern territory by one or more important lines will force most, if not all, other carriers in that territory to maintain the same basis and perhaps affect also fares in western and official territories.

In order to obtain pertinent information bearing upon the extent to which orders relieving carriers from requirements of sections 4 and 6 should be made, the commission announced on April 14, that a hearing upon the applications mentioned

(Continued on page 590)

Mass. Truck Operators Assent to Regulation

Commission control of common and contract carrier permits and rates approved

Despite the attitude of professional spokesmen for truck transportation who are vigorously opposing in Washington commission regulation of this business, alleging the adequacy of NRA rule to bring order in highway transportation, truck operators in Massachusetts have voluntarily assented to commission regulation in that Commonwealth.

At a recent hearing before the joint transportation committee of the Massachusetts Legislature a redraft of a truck regulatory bill was presented by a committee representing trucking interests and railroads upon which these two interests have agreed. This bill is designed to take the place of the law which was enacted last year on which a referendum is now pending. If the new bill is enacted, the referendum will be unnecessary. The bill is supported also by the Associated Industries of Massachusetts and the Boston Chamber of Commerce.

The proposed legislation would require common carrier trucks to secure certificates and to file tariffs. No service, not provided for in the tariffs, could be performed at less than a compensatory charge and unreasonable prejudice and discrimination would be prohibited. Rates must be reasonable and compensatory. The truckers are allowed, however, to meet the competitive rates of interstate or neighboring state trucks which are not regulated. Rates are not to be changed without thirty days' notice except upon special permission of the Department of Public Utilities. Where a change is desired to meet the rate of competing interstate or out-of-state carriers, the department would allow the change immediately. The department may, on complaint of any interested party after notice and hearing, approve or disapprove, alter or prescribe common carrier truck rates.

In determining whether or not a certificate shall be granted, the Department of Public Utilities must take into consideration:

1. The existing transportation facilities and the effect upon them of granting such certificate.
2. The public need for the service.
3. Financial responsibility of applicant.
4. The ability of the applicant to perform the service.
5. Conditions of and effect upon the public highways.
6. The safety of the public using the highways.

No certificate would be denied solely on the ground that there is an existing rail service. Where a service is already being provided by a certificated common carrier, no additional certificate would be issued until those already holding the certificates have been given an opportunity to furnish additional service. Contract carriers are defined as all transportation of property for hire by motor vehicle other than by a common carrier. Contract carriers are to be required to secure permits which will be granted if the department finds that the applicant is able to perform the service and

to conform to the law, and that the proposed operation is not inconsistent with the public interest. The department may specify the operations covered and attach terms and conditions.

The department may also prescribe rules and regulations covering the operations of contract carriers in competition with common carriers and prescribes minimum rates for the former which shall be no less than those charged by the latter. A "grandfather" clause provides for the granting of certificates to all carriers actually rendering service February 1, 1934, providing application is made within sixty days from effective date. The law enacted last year did not include motor vehicles operated solely within twenty miles of a single city or town. This exemption is eliminated in the new bill. The bill also continues the hours of service limitations of the law enacted last year.

Railway Magazine Editors to Meet

The mid-year meeting of the American Railway Magazine Editors' Association will be held at the Netherland Plaza Hotel, Cincinnati, Ohio, on May 3 and 4.

Club Meeting

The Railway Club of Pittsburgh (Pa.) will hold its next meeting on Thursday evening, April 26, at the Fort Pitt hotel, Pittsburgh. E. A. Foard, superintendent of stations and transfers on the Pennsylvania, will present a paper on store-door collection and delivery of freight.

The Burlington Zephyr—A Correction

On page 535 of the April 14 issue of the *Railway Age* in the description of the Burlington Zephyr reference is made to the use of smooth surfaces on the outside dead-light panels. These panels are erroneously referred to as Plymetl. They are Armorply, a plywood covered with stainless steel on the outside surface and with copper on the inside surface. This material is furnished by the U. S. Plywood Company, New York.

Identification Marking for Automobile Box Cars with Loaders

There are several thousand automobile box cars in service equipped with mechanical loading devices. In harmony with the expressed opinion of the Car Service Division that the movement of such cars would be facilitated if they were provided with identification marking and upon recommendation of the Committee on Car Construction the Mechanical Division of the American Railway Association is taking a letter ballot on the addition of the following note for Fig. 1, page 40, Section L, of the Manual:

"Note 13. For automobile box cars equipped with automobile loading racks a 3-in. white stripe is to be painted on the right-hand door, facing side of cars, extending full width of door, approximately 3 ft. above floor line, and immediately above this stripe the words "Auto Rack" are to be stenciled in white letters 2 in. high; this marking to be applied to both sides of car."

Christening of Burlington Zephyr at Philadelphia

New streamlined train will visit eastern cities during the next three weeks

Elaborate dedicatory services for the new Burlington high-speed, streamlined train, the Zephyr, were held in the Broad Street Station of the Pennsylvania Railroad at Philadelphia, Pa., on the afternoon of Wednesday, April 18. Graham McNamee, the radio announcer, acted as master of ceremonies and in directing a broadcast over the NBC chain of radio stations. The group at the ceremony included a large number of railway and railway supply representatives, as well as many prominent citizens of Philadelphia.

The first speaker was Philip H. Gadsden, president of the Chamber of Commerce of Philadelphia. He expressed pride in the fact that the train was a product of a local manufacturer. General W. W. Atterbury, president of the Pennsylvania, was unable to attend the ceremony, but spoke from the NBC studios in Radio City, New York, congratulating President Ralph Budd of the Burlington, "whose vision, courage, initiative and genuine railroad executive ability have made this new train possible." He also congratulated the officers and employees of the various manufacturing organizations, whose products had been used on the new train.

Edward G. Budd, president of the Edward G. Budd Manufacturing Company, was next introduced as the builder of the new train. He paid a high tribute to all those who had been instrumental in producing it, not only in his organization, but in the other companies whose products were used. He said, also, that President Budd of the Burlington had been interested in this type of equipment from the time that the Budd Company built its first sample rail car in August, 1932.

Alfred P. Sloan, president of the General Motors Corporation, whose subsidiary, the Winton Engine Company designed and constructed the Diesel engine power plant, commented upon the extent to which scientific industrial research was represented in the new train. William Irvin, president of the United States Steel Corporation, spoke briefly on the development and qualities of the stainless steel. Gerard Swope, president of the General Electric Company, was unable to be present, but spoke over the radio from New York, referring in particular to the extent to which electricity in various ways was instrumental in making the train a success. Owen Cunningham, announcer for Philadelphia's radio station WLIT, then spoke from the circular glass-enclosed observation solarium at the rear end of the train, giving his impressions of the outstanding features from the standpoint of passenger comfort and convenience.

Ralph Budd, president of the Burlington, thanked all those who had made the new train possible, and then indicated that after an exhibition tour, the train will operate between Kansas City, Omaha and Lincoln. "To those of us on the railroads," said Mr.

Budd, "this sleek, glistening, streamlined streak symbolizes progress, and it is appropriate that the Burlington should build this train for use along the Missouri river, for Burlington track was the first to reach the Missouri in the railroad race for the West. This was in 1859."

Miss Marguerite Cotsworth, a student of Swarthmore College, and the daughter of Albert Cotsworth, Jr., passenger traffic manager of the Burlington, with a few appropriate words then christened the train. As the bottle crashed against the Zephyr, its siren sounded and whistles on the locomotives in the terminal added to the din. The train then proceeded on its maiden trip, a special Pennsylvania train escorting it to Paoli.

The Zephyr will make an extensive tour of the country prior to its being placed on exhibition at A Century of Progress exposition in Chicago early in July. Proceeding from Philadelphia, the train will visit the principal cities of the Middle Atlantic and New England states before turning westward for visits to Middle Western points and thence to Burlington System and Pacific Coast tours.

The detailed schedule as thus far developed is as follows: April 19, Philadelphia; April 20, Gray's Ferry, Pa., Chester, Wilmington, Del., and Baltimore, Md.; April 21, Washington, D. C.; April 22, Trenton, N. J., New Brunswick, Elizabeth and Newark; April 23, Pennsylvania Station, New York; April 24, Grand Central Station, New York; April 25, Bridgeport, Conn., New Haven and Providence, R. I.; April 26, Boston, Mass.; April 27, Worcester and Springfield; April 28, Albany, N. Y., Schenectady and Utica; April 29, Syracuse and Rochester; April 30, Buffalo; May 2, Detroit, Mich.; May 3, Toledo, Ohio; May 4, Cleveland and short stops at other points. May 5, Pittsburgh, Pa.; May 6, Columbus, Ohio, and Dayton; May 7, Cincinnati; May 8, Louisville, Ky.; May 9, Indianapolis, Ind.; May 10, Ft. Wayne and Chicago.

Upon leaving the latter city the Zephyr will proceed to its Burlington System and Pacific Coast tours, returning to Chicago about July 6 to take its place in the Burlington exhibit at A Century of Progress.

Trucks to Be Registered

The National Recovery Administration has approved the procedure for the registration of members of the trucking industry as submitted by the national code authority for the industry under the terms of the approved code. Under Article VI of the code every member of the industry is required to register his name and the number and types of vehicles operated. The article also authorized the members of the code authority to work out forms to be used in the registration and methods of procedure.

North Western Class-A Safety Leader

The fourth consecutive year of employee safety leadership among Class-A railroads in America was achieved by the Chicago & North Western in 1933, during which there were no passengers killed in train accidents and the employee casualties

(killed and injured) were the lowest in the history of the road. There were only 5 employees killed and 89 injured, a reduction of more than 23 per cent over 1932 when 15 were killed and 101 injured. The casualty rate for 1933 was 1.65, as compared with 1.97 in 1932.

Additional Repayments by R.C.C.

Railroads which borrowed from the fund administered by the Railroad Credit Corporation, have anticipated their maturities to such an extent that the corporation will, on April 30, repay approximately \$5,166,500 to participating carriers, of which \$2,335,000 will be in cash to non-borrowing carriers, and \$2,831,500 will be in credits on obligations of borrowing carriers. This repayment amounts to 7 per cent of the emergency freight charges contributed to the pool, and will be in lieu of the 1 per cent distribution announced March 15. It will bring the total distributions to \$14,038,600, or 19 per cent of the net contributions which aggregated \$73,887,600.

Huge Public Works Program Proposed by LaFollette

Senator LaFollette has introduced in the Senate a bill to authorize an appropriation of \$10,000,000,000 for the purpose of carrying forward the program of public works inaugurated under the provisions of the national industrial recovery act, to include not less than \$1,250,000,000 for the elimination of hazards to highway traffic under the provision of the law which includes grade crossing elimination. The bill would also amend the latter provision to include track elevation and depression through cities. The bill would also declare it to be the policy of Congress, that the requirements as to security for loans "shall be liberally construed."

Pennsylvania Shows Good Train-Operating Results

Pennsylvania trains in 1933 were freer from delays chargeable to equipment failures than in 1932 and the general condition of the equipment was improved, despite reductions in expenditures for maintenance of locomotives and cars.

Passenger trains, for example, travelled last year 14,154 miles for each delay due to a locomotive failure in contrast to 12,302 miles in 1932. Freight trains travelled 15,886 miles last year for each locomotive failure as compared with 14,093 miles in the previous year. Improved condition of car equipment was reflected in the fact that car failures last year caused a passenger-train detention only once in every 251,854 miles in contrast to a detention once in every 208,884 miles in 1932. There were also fewer hot journals in passenger train service in 1933 than in the previous year.

At the same time maintenance of equipment expenses per locomotive mile declined from 59.94 cents in 1932 to 59.06 cents in 1933. Locomotive mileage on the Pennsylvania decreased two per cent in 1933 compared with 1932, while a four per cent reduction was achieved in maintenance of equipment expenses.

In this connection it should be noted that on the Pennsylvania detentions to passenger trains due to car and engine failures in-

clude delays of a fraction of a minute, no matter whether or not the train later makes up its schedule and reaches destination on time.

Western Roads Ask Authority to Continue Reduced Fare Experiment

The western railroads have applied to the Interstate Commerce Commission for the necessary authority for an extension from May 31 to September 30 of the sale dates for their experimental reduced fares, which have been in effect since December 1, on the basis of 2 cents a mile in coaches and tourist sleeping cars and 3 cents a mile in standard sleeping cars. While the results to date have been encouraging, the application states, the experiment so far supports the belief that the six-months period originally planned is not sufficient to enable the carriers to reach definite conclusions as to the success of the experiment.

Express Company Tours for the Fair

The co-operative passenger movement fostered last year by the railroads and the American Express Company is to be continued for the 1934 Century of Progress Exhibition in Chicago. This co-operative plan simplified the travel of thousands of visitors to the World's Fair, who were enabled to buy a "complete visit" to Chicago, including hotel accommodations, admission to the Fair grounds and sightseeing, at the time of purchasing their railroad tickets. This year the railroads and the express company are enlarging their plans and are also making special efforts to bring foreigners into the country. It is expected that foreign travel will be further stimulated by the increased number of foreign exhibits and a more favorable basis of money exchange.

Recent Supreme Court Decision in Grade Crossing Accident Case

The law as to just where, when, how, and how much the driver of an automobile (or a horse) should look and listen as he approaches a railroad crossing, which has often been discussed in judicial decisions and which, as phrased by Mr. Justice Oliver Wendell Holmes in the case of B. & O. against Goodman in October, 1927 (275 U. S. 66), was the subject of widespread newspaper comment, will now be subjected, very likely, to more comment, as Mr. Justice Cardozo has further defined the responsibilities of ears, eyes, feet and the ratiocinative processes. It is in the Supreme Court's decision of April 2, in the case of Pokora versus the Wabash. (This is not the first airing of Justice Holmes' decision; it has been cited in 40 or 50 decisions in lower courts.)

The Court refuses to set a standard of care for automobilists negotiating grade crossings. It depends upon the circumstances of each case. While regarding the opinion in the Goodman case as correct in its result, being of opinion that the failure of Goodman to look and see an approaching train which was clearly visible within a clear space of 18 ft. before he reached the track was negligence, the Court limited the doctrine of that opinion to the facts of the case. It considers that the Goodman decision, which went further than in the

earlier cases, did not support a rule that at any and every crossing the duty to stop is absolute, irrespective of the danger. "To the contrary," the Court says, "the opinion makes it clear that the duty is conditional upon the presence of impediments whereby sight and hearing become inadequate for the traveler's protection."**** To get out of a vehicle and reconnoitre is an uncommon precaution, as everyday experience informs us. Besides being uncommon, it is

very likely to be futile and sometimes even dangerous. If the driver leaves his vehicle when he nears a cut or curve, he will learn nothing, by getting out, about the perils that lurk beyond. By the time he regains his seat and sets his car in motion, the hidden train may be upon him.***** In default of the guide of customary conduct, what is suitable for the traveler caught in a mesh where the ordinary safeguards fail him is for the judgment of a jury."

In the present case a truck driver was struck by a train running at 25 to 30 miles an hour on the main line at a four-track crossing, in Springfield, Ill. No bell or whistle had been sounded. A string of box cars obstructed the truck driver's view of the train. He stopped and listened before crossing a side track to the main track, where the accident happened. The courts below held he was guilty of contributory negligence and directed a verdict for de-

Operating Revenues and Operating Expenses of Class I Steam Railways in the United States

Compiled from 148 Monthly Reports of Revenues and Expenses Representing 149 Class I Steam Railways

FOR THE MONTH OF FEBRUARY, 1934 AND 1933

Item	United States		Eastern District		Southern District		Western District	
	1934	1933	1934	1933	1934	1933	1934	1933
Average number of miles operated	239,460.56	241,347.28	59,168.97	59,562.48	45,478.66	45,868.13	134,812.93	135,916.67
Revenues:								
Freight	\$201,661,350	\$169,230,858	\$90,251,176	\$74,416,048	\$43,271,912	\$37,485,605	\$68,138,262	\$57,329,205
Passenger	25,377,002	23,621,008	15,409,955	14,047,008	4,007,738	3,359,229	5,959,309	6,214,771
Mail	7,184,305	7,172,925	2,773,307	2,782,619	1,264,554	1,240,823	3,146,444	3,149,483
Express	3,682,646	2,446,793	1,429,685	1,134,293	967,690	643,829	1,285,271	668,671
All other transportation	5,574,514	5,310,909	2,970,785	3,037,099	586,411	483,510	2,017,318	1,790,300
Incidental	4,466,876	3,931,250	2,469,611	2,305,484	724,168	576,830	1,273,097	1,048,936
Joint facility—Cr.	666,743	632,893	218,395	213,481	147,351	122,094	300,997	297,318
Joint facility—Dr.	174,183	192,626	51,514	48,041	17,246	18,917	105,423	125,668
Railway operating revenues	248,439,253	212,154,010	115,471,400	97,887,991	50,952,578	43,893,003	82,015,275	70,373,016
Expenses:								
Maintenance of way and structures	25,121,866	21,641,459	10,895,333	8,643,718	5,311,420	4,871,255	8,915,113	8,126,486
Maintenance of equipment	50,531,115	44,989,855	23,188,680	19,983,976	9,616,461	8,600,929	17,725,974	16,404,950
Traffic	7,096,895	6,973,730	2,718,045	2,656,215	1,382,631	1,310,283	2,996,219	3,007,232
Transportation	92,041,803	84,296,230	45,119,458	39,199,267	15,555,054	14,346,373	31,367,291	30,750,590
Miscellaneous operations	2,105,513	1,765,885	1,059,952	898,916	302,108	236,061	743,453	630,908
General	11,826,187	11,934,022	5,204,569	5,156,415	1,984,848	2,024,060	4,636,770	4,753,547
Transportation for investment—Cr.	132,157	267,114	30,158	138,169	8,913	38,313	93,086	90,632
Railway operating expenses	188,591,222	171,334,067	88,155,879	76,400,338	34,143,609	31,350,648	66,291,734	63,583,081
Net revenue from railway operations	59,848,031	40,819,943	27,315,521	21,487,653	16,808,969	12,542,355	15,723,541	6,789,935
Railway tax accruals....	20,571,842	21,435,327	8,341,119	8,395,141	4,229,761	4,302,083	8,000,962	8,738,103
Uncollectible railway revenues	85,463	54,955	37,827	18,754	20,320	9,415	27,316	26,786
Railway operating income	39,190,726	19,329,661	18,936,575	13,073,758	12,558,888	8,230,857	7,695,263	* 1,974,954
Equipment rents—Dr. balance	6,854,669	6,427,132	3,440,301	3,387,184	582,732	453,417	2,831,636	2,586,531
Joint facility rent — Dr. balance	3,055,044	2,768,750	1,635,650	1,363,446	369,244	294,953	1,050,150	1,110,351
Net railway operating income....	29,281,013	10,133,779	13,860,624	8,323,128	11,606,912	7,482,487	3,813,477	* 5,671,836
Ratio of expenses to revenues (per cent)....	75.91	80.76	76.34	78.05	67.01	71.43	80.43	90.35

FOR TWO MONTHS ENDED WITH FEBRUARY, 1934 AND 1933

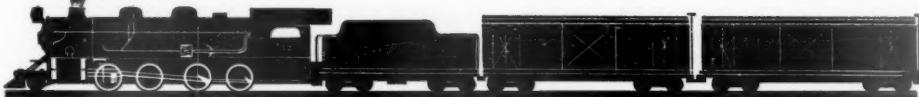
Average number of miles operated	239,490.20	241,358.01	59,172.02	59,562.32	45,491.60	45,868.13	134,826.58	135,927.56
Revenues:								
Freight	\$410,435,151	\$348,470,264	\$182,603,459	\$152,272,238	\$86,592,340	\$76,947,298	\$141,239,352	\$119,250,728
Passenger	52,576,051	50,274,684	32,191,162	30,191,495	7,693,877	6,755,957	12,691,012	13,327,232
Mail	14,830,084	14,904,645	5,743,864	5,784,821	2,620,908	2,572,964	6,465,312	6,546,860
Express	6,730,690	4,703,133	2,607,588	1,971,412	1,787,376	1,211,901	2,335,726	1,519,820
All other transportation	11,407,455	10,904,556	6,091,915	6,282,723	1,127,680	984,218	4,187,860	3,637,615
Incidental	9,411,521	8,511,332	5,227,660	4,960,699	1,485,748	1,256,542	2,698,113	2,294,091
Joint facility—Cr.	1,412,468	1,332,321	463,995	442,440	301,478	254,267	646,995	635,614
Joint facility—Dr.	361,722	391,785	101,375	104,201	31,331	39,124	229,016	248,460
Railway operating revenues	506,441,698	438,709,150	234,828,268	201,801,627	101,578,076	89,944,023	170,035,354	146,963,500
Expenses:								
Maintenance of way and structures	50,281,773	44,296,162	21,023,824	17,980,569	10,901,186	9,875,907	18,356,763	16,439,686
Maintenance of equipment	103,221,732	92,581,761	47,515,176	40,920,471	19,413,308	17,961,291	36,293,248	33,699,999
Traffic	14,387,774	14,272,278	5,453,577	5,328,196	2,829,014	2,747,251	6,105,183	6,196,831
Transportation	188,339,808	174,059,964	90,843,153	80,928,543	31,679,703	29,554,887	65,816,952	63,576,534
Miscellaneous operations	4,293,354	3,777,700	2,173,719	1,909,834	587,157	488,371	1,532,478	1,379,495
General	24,195,208	24,496,490	10,606,478	10,573,706	4,083,349	4,156,199	9,505,381	9,766,585
Transportation for investment—Cr.	278,872	470,528	71,164	186,196	23,810	72,781	183,898	211,551
Railway operating expenses	384,440,777	353,013,827	177,544,763	157,455,123	69,469,907	64,711,125	137,426,107	130,847,579
Net revenue from railway operations	122,000,921	85,695,323	57,283,505	44,346,504	32,108,169	25,232,898	32,609,247	16,115,921
Railway tax accruals....	41,341,885	43,175,527	16,686,971	17,017,629	8,481,704	8,591,530	16,173,210	17,566,368
Uncollectible railway revenues	191,938	145,412	98,417	52,313	40,646	17,072	52,875	76,027
Railway operating income	80,467,098	42,374,384	40,498,117	27,276,562	23,585,819	16,624,296	16,383,162	* 1,526,474
Equipment rents—Dr. balance	14,291,043	13,035,406	6,999,059	6,843,400	1,217,685	861,713	6,074,299	5,330,293
Joint facility rent — Dr. balance	5,966,173	5,620,189	3,290,072	2,894,595	699,007	630,698	1,977,094	2,094,896
Net railway operating income....	60,209,882	23,718,789	30,208,986	17,538,567	21,669,127	15,131,885	8,331,769	* 8,951,663
Ratio of expenses to revenues (per cent)....	75.91	80.47	75.61	78.02	68.39	71.95	80.82	89.03

* Deficit or other reverse items.

Compiled by the Bureau of Statistics, Interstate Commerce Commission. Subject to revision.

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OBSOLETE EQUIPMENT *is a drag* ON THE OPERATING RATIO



Railroads are producers of transportation . . . manufacturers of ton miles. Their most important tools are locomotives, which exert the greatest influence on transportation costs.

Over 80% of existing locomotives are obsolete . . . unfit for present day requirements . . . wasting money with every turn of their drivers.

**REPLACE THESE OBSOLETE TOOLS WITH
MODERN SUPER-POWER LOCOMOTIVES
and reduce transportation costs at least 25%.**

LIMA LOCOMOTIVE WORKS, INCORPORATED



fendant, the Circuit Court of Appeals relying on the Goodman case. This judgment the Supreme Court now reverses and has remanded the case for further proceedings. "In the circumstances," the Court said, "the question, we think, was for the jury whether reasonable caution forbade his going forward in reliance on the sense of hearing, unaided by that of sight. No doubt it was his duty to look along the track from his seat, if looking would avail to warn him of his danger: this does not mean, however, that if vision was cut off by obstacles, there was negligence in going on, any more than there would have been in trusting to his ears if vision had been cut off by the darkness of the night."—*Pokora v. Wabash*. Decided April 2, 1934. Opinion by Mr. Justice Cardozo.

March Locomotive Shipments

March shipments of railroad locomotives from principle manufacturing plants, as reported to the Bureau of Census, United States Department of Commerce, totaled one locomotive, as compared with none in February and two in March, 1933. Unfilled orders at the close of March totaled 104 locomotives (69 electric and 35 steam) as compared with 69 (67 electric and two steam) at the close of March, 1933.

These figures do not include data on locomotives produced by railway companies in their own shops.

Through Trains Made Faster

The New York Central, with the new time-table, April 29, will shorten the schedules of several New York-Chicago trains. The Commodore Vanderbilt will go through in 19½ hrs., the Exposition Flyer, in 20 hrs. 10 min., the Iroquois 20 hrs., and the Mohawk, in 20 hrs. 40 min.

The Lake Shore Limited, east-bound, will leave Chicago at 7 p. m. and run through in 21 hrs. The Fast Mail, leaving Chicago at 9:50 a. m. will have sleeping cars.

The Knickerbocker, east-bound, will run from St. Louis to New York in 32 hrs. 30 min. Sleeping cars from New York to Toronto, Ont., will leave New York at 7:45 p. m., shortening the time 1 hr. 15 min. The Twentieth Century Limited is to be completely air conditioned, and there will be air-conditioned cars on all through trains.

On the Pennsylvania the Pennsylvania Limited will leave New York at 1:50 p. m. and run through to Chicago in 20 hrs., and, east-bound, it will make the trip in 1 hr. 15 min. less than heretofore. The Golden Arrow and other trains will also be quickened. The Colonial Express will leave Washington for Boston at 8 a. m. instead of 10 a. m., and the Senator and certain other trains will run one hour earlier to conform to daylight-saving time.

Highway Freight Association Opens Washington Office

Contending that self-regulation by the motor truck transportation industry under the trucking code will not remedy the evils in the highway transportation situation recently pointed out by Co-ordinator Eastman, common carrier truck operators have

established headquarters in Washington for their new organization, the National Highway Freight Association. The president is J. L. Keeshin, of Chicago. Federal regulation of motor trucks is the objective of the organization.

"We are for federal regulation of interstate commerce by truck," the announcement by Mr. Keeshin states. "Under the Trucking Code we have all of the disadvantages and none of the advantages of regulation. We must pay code wages and comply with code hours and regulations, but we get no protection against cut-throat competition and chiseling." Jerome Fanciulli, of Washington, who has been prominent as an opponent of federal regulation of highway transportation, is in charge of the association headquarters. In announcing his changed attitude he stated that the trucking code is responsible. "Basically, the trucking code is wrong in that it attempts to cram into one mold all forms of trucking regardless of the great variations in the pattern of the different types," said Mr. Fanciulli. "Starting from a false premise, the approved code fails to give any branch of trucking any relief from destructive practices to compensate for the added burdens. The basis for every governmental regulatory agency is that it shall protect the public against abuses, promote efficiency in the business regulated, and insure such regulated business a fair return on its investment. The trucking code does none of these things. That is why I am for federal regulation."

Telegraph and Telephone Section, June 12

The Telegraph and Telephone Section of the American Railway Association will hold its annual meeting at the Stevens Hotel, Chicago, on June 12, 13 and 14. The program lists reports from—

Committee No. 1 on (A) pole line and underground construction, on joint and conflicting construction, on preservative treatment and on steel and concrete poles; (B) terminal, aerial wire and cable construction, cable splicing and transpositions; (C) outside plant maintenance, wire crossings and electrolysis; (D) material, tools and equipment.

Committee No. 2; reports by Sub-Committees, G, H, J, K.

Committee No. 3; economics.

Committee No. 4; electrical protection.

Committee No. 5; communication development.

Committee No. 6; message traffic.

Committee No. 7; inductive interference.

Committee No. 10; education and training of communication employees.

Committee No. 11; communication transmission.

Committee No. 12; radio and wire carrier systems.

Committee No. 13; accident and fire prevention and first aid for communication employees.

Papers will be presented on low frequency power induction, by L. M. Jones, A. J. Hanks and C. M. Brown, of the Western Union; on demonstration of low frequency induction between power and telephone circuits, by H. R. Huntley, A. T. & T.; on tentative standard specifica-

tions for wood poles, by Dr. R. H. Colley, Bell Telephone Laboratories; on application of printer telegraph to railroad service, by A. S. Benjamin, Teletype Corporation, and C. O. Overby, A. T. & S. F.

Senate Tax Bill Would Increase Railway Taxes

The internal revenue bill passed by the Senate on April 13, in a form differing from that in which it passed the House, would considerably increase the amount of federal income taxes paid by railways and other corporations by prohibiting the filing of "consolidated returns" such as have heretofore been filed by railway systems covering their subsidiary and affiliated companies. If finally passed in the form passed by the Senate this would require each railway corporation to file a separate return and would prevent losses by one corporation being used in part to offset net income earned by others in the system. As passed by the House the bill would impose an additional 2 per cent tax on consolidated returns by way of penalty, making the corporation tax 15½ per cent. The Senate on April 11 rejected without a record vote an amendment offered by Senator Reed, of Pennsylvania, to provide that the additional rate of 2 per cent shall not apply to corporations which are common carriers by railroad, their affiliated and/or leased corporations for the years 1934, 1935, and 1936, and on the following day it adopted an amendment by Senator Borah to prohibit the consolidated returns altogether. Counsel for the railways at the hearings had protested against the additional 2 per cent tax, pointing out that it is not a matter of choice that railway systems include so many separate companies, and that under state laws railways are required in many instances to incorporate in each state through which their lines operate. They contended that it was unfair to penalize them for reporting the results of the system as a whole.

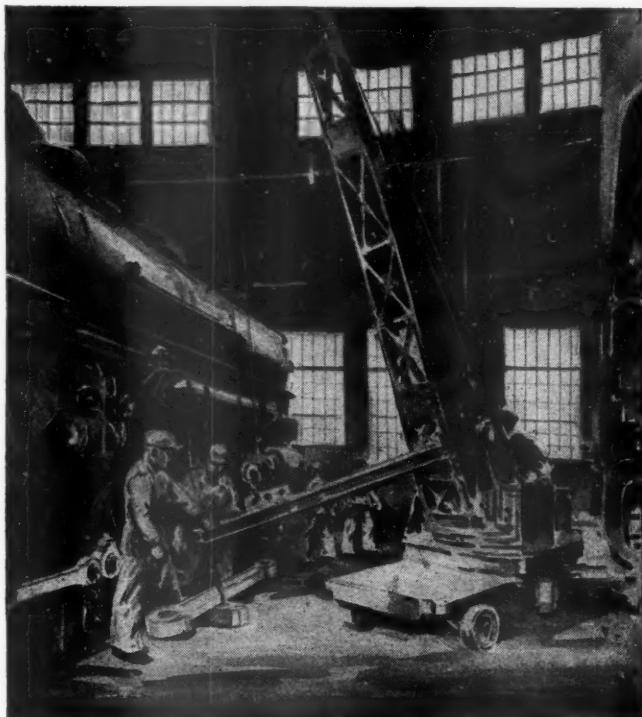
Another feature of the bill that will affect the railways is the provision for a capital stock tax of one-tenth of one per cent on the "adjusted" declared value of a corporation's capital stock and an excess profits tax of 5 per cent on net income in excess of 12½ per cent of the "declared" value.

Wage Controversy Returns to White House

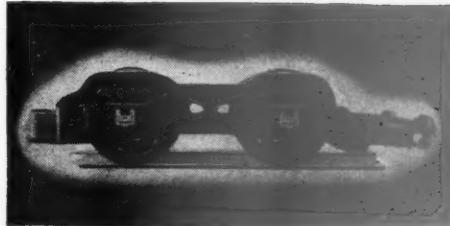
The controversy as to whether the 10 per cent deduction from railroad wage rates now in effect shall be continued for another period upon its expiration on June 30, was brought back to the President on April 18, following his return from a fishing trip on April 13. In his absence the matter had been left to further conferences between Co-ordinator Eastman, the Conference Committee of Managers, and the Railway Labor Executives' Association, but Mr. Eastman had announced on March 30 that it was clear to him that he could not compose the differences of opinion between the railroads and the labor organizations as long as there was "possibility of appeal to higher authority," and no further conferences with the committees were held. This week both committees reassembled in



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If a locomotive cylinder must be made large to give the needed power at low speeds it is too big for road speeds. Because the big cylinder is used continuously there is no chance to cut down on the work done and hence cut down on maintenance. You are still paying the full maintenance whether or not you are working to capacity.

But if the locomotive is designed to employ a combination of a smaller cylinder plus The Locomotive Booster to secure the equivalent power at low speeds, the Booster power can be cut out as speed increases and the smaller cylinders will then carry the load. Smaller cylinders naturally mean lower maintenance due to a reduction in the amount of work done.

Take full advantage of all the economies of The Locomotive Booster and incorporate it in the original design.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK

CHICAGO

MONTRÉAL

Washington and on Wednesday Co-ordinator Eastman and a committee of railroad executives appointed following a meeting in Chicago on April 5 conferred with the President at the White House. The Railway Labor Executives' Association was to see the President on Thursday or Friday. No announcement was made after the conference on Wednesday, but it was stated that the railroad executives had gone over the railroad situation generally with the President. The President had previously suggested a continuance of the present wage agreement for another six months and the railroad managers' committee had indicated its willingness to do so, but the labor committee had insisted on a restoration of the basic rates. The committee that accompanied Mr. Eastman to the White House on Wednesday consisted of Carl R. Gray, president of the Union Pacific; F. E. Williamson, president of the New York Central; J. J. Pelley, president of the New York, New Haven & Hartford; L. W. Baldwin, trustee of the Missouri Pacific; W. R. Cole, president of the Louisville & Nashville; and C. E. Denney, president of the Erie.

Activities of the P. & S. Division

In accordance with a recommendation of the Federal Co-ordinator, the Purchases and Stores Division, American Railway Association, has appointed a special committee to study purchasing methods. This committee, which consists of F. D. Reed, purchasing agent, Chicago, Rock Island & Pacific; A. C. Mann, vice-president and purchasing agent, Illinois Central; and C. E. Walsh, purchasing agent, Pennsylvania, is considering a plan to form regional boards of railway purchasing officers to review copies of all orders placed by railroads for supplies and to study these orders to determine the extent of adherence to A. R. A. standards and specifications, the routing of railway material and the prices paid for material. The committee has recommended giving the plan a trial in one region by the formation of a committee of purchasing officers of not more than six railroads with offices in the city of Chicago, and authorizing this committee to act as the reviewing board during the trial period.

The General Committee and Advisory Committee of the Division have decided that no annual meeting of the Division shall be held this year. Instead, a meeting of the General and Advisory committees will be held in Chicago during June, at which the chairmen and members of subject committees will present completed recommendations, and at which the winners of the annual essay contest will present their papers.

Forty-one representatives of purchases and stores departments from 13 western railroads attended a group meeting held recently in Salt Lake City, Utah, called by U. K. Hall, general purchasing agent of the Union Pacific, to meet with R. L. Lockwood, director, Section of Purchases, Federal Co-ordinator; and, with D. C. Curtis, chief purchasing officer, Chicago, Milwaukee, St. Paul & Pacific, who reviewed the activities of the Code Committee, with reference particularly to the lumber and tie codes. Another group meeting, at-

tended by 20 P. & S. representatives of southern roads, was held at Atlanta, Ga., under the direction of J. L. Bennett, purchasing agent, Central of Georgia, to consider the iron and steel code, as well as the Lumber and Tie codes; and, on April 6, a similar meeting of the western group was held in Chicago.

D. C. Curtis has been appointed chairman of a committee to study the proposed code of the bolt, nut and rivet industry, and A. C. Mann has been appointed chairman of a committee to study the proposed code for railroad special track equipment.

Hearing on Passenger Fares Announced by I. C. C.

(Continued from page 585)

will be held before Division 2, at Washington, April 23. The applicants and all other parties desiring to present any facts in support of or in opposition to any of the pending applications or pertinent to the question of passenger fares to be applied in western and southern territories and between those territories and other territories for the period immediately following May 31, should either attend the hearing in question, or present their views and arguments in writing on or before that date. Among the pending applications were listed the following:

By Agents J. E. Hannegan and H. W. Siddall, on behalf of western carriers, dated April 9, for relief from certain provisions of the commission's tariff rules and for authority to publish tariffs on one day's notice (for the period June 1 to September 30, 1934, inclusive), the proposed coach fares being on the basis of approximately 1½ cents a mile.

By Agent C. B. Rhodes, on behalf of the Southern and affiliated lines, dated April 5, for extension until December 31, of the relief from the provisions of section 4 now afforded by fourth section order 11428 in so far as it applies to the petitioning carriers.

By Agent C. B. Rhodes, on behalf of all carriers in southern territory other than the Southern, and the receivers of the Seaboard Air Line and affiliated lines, dated April 11, for relief from certain tariff rules and from the aggregate-of-intermediates provision of the fourth section to maintain from June 1 to September 30, fares in sleeping and parlor cars and in coaches as set forth in the application, the proposed coach fare being 2 cents a mile.

By Agent C. B. Rhodes, on behalf of the receivers of the Seaboard Air Line and affiliated lines for relief from tariff rules and from the aggregate-of-intermediates provision during the period June 1 to November 30, the proposed coach fares being on the basis of 2 cents a mile.

By the Norfolk & Western for relief from tariff rules and from the aggregate-of-intermediates provision to maintain between points on its lines fares as set forth in the application, from June 1 to September 30, the proposed coach fare being 2 cents a mile.

The proceeding has been designated as Ex Parte No. 114.

Supply Trade

Amendments to M. A. P. I. Code

The National Recovery Administration has announced a public hearing to be held on April 27 by L. J. Martin, acting deputy administrator, on amendments proposed to the approved code of the Machinery and Allied Products Industry. The temporary Basic Code Authority sponsors the modification, which is intended to add three new subdivisions to the M. A. P. I. Code: chemical engineering equipment subdivision, electric overhead crane manufacturing subdivision, and locomotive appliance subdivision.

L. G. Sever, assistant to the president of the Mt. Vernon Car Manufacturing Company, Mt. Vernon, Ill., has been appointed vice-president and manager of sales.

The Davenport Besler Corporation has become the successor to the Davenport Locomotive & Manufacturing Corporation. The headquarters of the company are at Davenport, Iowa.

The Gate City Iron Works Company, Omaha, Neb., and Earle M. Jorgensen Company, Los Angeles, Cal., have been appointed distributors of Enduro stainless steel, according to an announcement of the Republic Steel Corporation, Youngstown, Ohio.

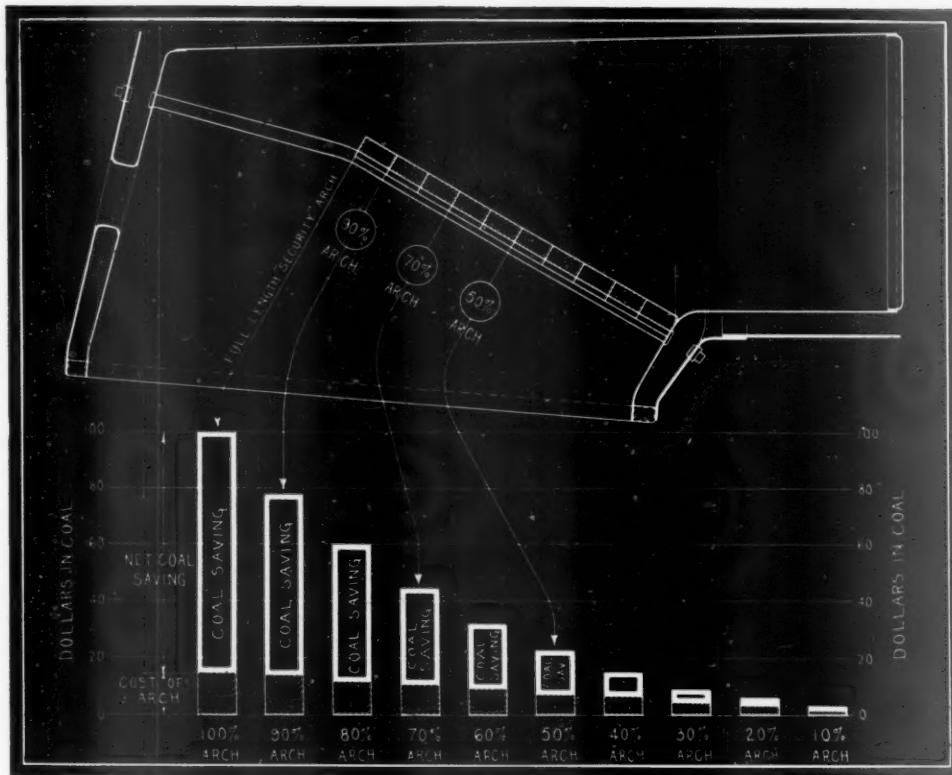
The chilled car wheel industries, through the Association of the Manufacturers of Chilled Car Wheels, completed the selection of the members of its code authority on April 13. The members elected by the industries are: D. H. Sherwood, president of the association and vice-president of the Maryland Car Wheel Company; W. F. Cutten, president of the Southern Car Wheel Company; J. L. Kilpatrick, president of the Albany Car Wheel Company and the Reading Car Wheel Works; E. P. Waud, vice-president of the Griffin Wheel Company and president of the Cleveland Production Company; and J. M. Keller, manager of foundries of the American Car & Foundry Company. Horace B. Horton, treasurer of the Chicago Bridge and Iron Works, Chicago, has been appointed administration member of the code authority by the N.R.A.

OBITUARY

Benjamin F. Otley who retired as president and general manager of the Otley Paint Manufacturing Company, Chicago, in 1918, died in that city on April 5, following a cerebral hemorrhage.

Olin B. Frink, sales representative of the Kerite Insulated Wire & Cable Company, Inc., New York, died suddenly on April 14, at his home in Elizabeth, N. J. Mr. Frink had been in the service of this company since 1926. He previously was with the Waterbury Battery Company, at New York, and before that was chief engineer of the Hall Signal Company, now part of the Union Switch & Signal Com-

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LET THE ARCH HELP YOU SAVE

With the emphasis being placed on saving every possible railroad dollar, the locomotive Arch becomes increasingly important.

Regardless of the amount of traffic handled, the locomotive Arch saves enough fuel to pay for itself ten times over.

Be sure that every locomotive leaving the roundhouse has its Security Arch complete with not a single course missing.

In this way, you will get more work for each dollar of fuel expense. Skimping on Security Arch Brick results in a net loss to the railroad.

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

**HARBISON-WALKER
REFRACTORIES CO.**
Refractory Specialists



**AMERICAN ARCH CO.
INCORPORATED**
**Locomotive Combustion
Specialists** » » »

pany, and had also been in railroad service with the Delaware & Hudson and other roads.

Alfred J. Jupp, a vice-president of the Lunkheimer Company, Cincinnati, Ohio, died suddenly in Roosevelt Hospital, New York, on April 10, while on a business trip. Born in Cincinnati on June 25, 1875, Mr. Jupp entered the employ of the Lunkheimer Company in May, 1890. In 1896 he was made New York representative, returning to the home office in Cincinnati in 1913. Mr. Jupp was active in the Manufacturers' Standardization Society and also contributed the greater part of his time during recent months to code work in the valve and fittings industry. Mr. Jupp was a member of a number of technical associations and clubs.

Construction

CHICAGO GREAT WESTERN.—Bids will be received by this railroad on April 23 for the construction of a 65-ft. plate-girder bridge on concrete abutments to carry its tracks over Euclid avenue at Des Moines, Iowa.

ILLINOIS CENTRAL-YAZOO & MISSISSIPPI VALLEY.—Contracts have been awarded for all the concrete work involved in the construction of the bridges carrying the tracks of these companies across the Bonnet Carre spillway. This work involves the construction of the concrete piers for the steel spans, the concrete decks for these spans and the concrete fire walls for the timber trestle portion of the bridges. The contract for the Illinois Central bridge was awarded to the R. J. Reid Contracting Company, Birmingham, Ala., while that for the Y. & M. V. structure was let to the Walsh Construction Company, Indianapolis, Ind. See also *Railway Age* of February 3, page 213.

ILLINOIS STATE HIGHWAY DEPARTMENT.—On April 18 the Illinois State Highway Department received bids for the construction of two subway structures to carry railroad tracks over streets in the Chicago area. These include a bridge, consisting of a 70-ft. plate-girder span on concrete abutments, to carry the tracks of the Chicago, Rock Island & Pacific over Cicero avenue at Oak Forest, and a bridge to carry the Chicago, Milwaukee, St. Paul & Pacific tracks over Waukegan Road at Glenview. The latter structure will have a 136-ft. plate-girder main span and two 26-ft. plate-girder approach spans. Bids will be received in the near future for several other similar structures, including subways under Chicago & Eastern Illinois tracks at Chicago Heights; under Indiana Harbor Belt tracks at Melrose Park; and under Chicago & North Western tracks at Niles Center. A contract has been awarded to the E. J. Albrecht Company, Chicago, for the construction of a subway to carry Cicero avenue, Chicago, under Chicago & North Western tracks near Gummison street. All of the foregoing structures are being financed with funds furnished by the federal government.

Equipment and Supplies

P. W. A. Loans to Railroads

After having executed contracts with 23 railroads covering loans to the amount of \$171,272,000 of the \$199,607,800 which has been allotted to railroads, the Public Works Administration this week made public a comprehensive report to the Senate of its activities for the period ending

Name of applicant	Purpose	Loan requested
Alabama, Tennessee & Northern R. R.	Repairs and equipment	\$200,000
Arkansas Valley Interurban Ry.	Rail	100,000
Bartlett Western Ry.	Maintenance	5,000
Bellevue & Cascade R. R.	Equipment	40,000
California & Oregon Coast	Extension	5,718,565
Carolina Southern	Ties and maintenance	25,000
Chicago, Milwaukee, St. Paul & Pacific R. R.	Rail, repairs and equipment	8,607,383
Fonda, Johnstown & Gloversville R. R.	Equipment	200,000
Hoosac Tunnel & Wilmington R. R.	Miscellaneous items	5,100
Huntington & Broad Top Mountain R. R.	Rail and fastenings	40,000
Interior Motor Ship Lines, Inc.	Floating equipment	100,000
International & Great Northern R. R.	Equipment	2,000,000
Louisiana & Arkansas Ry.	Repairs, rail and equipment	500,000
Minneapolis, St. Paul & Sault Ste. Marie	Equipment	500,000
Missouri & North Arkansas R. R.	Rail, repairs and maintenance	250,000
Missouri Southern R. R.	Equipment	55,000
New York Central	Rail and fastenings	2,500,000
Nezperce & Idaho R. R.	Ties	6,400
Pittsburgh, Shawmut & Northern R. R.	Equipment	20,000
Pittsburgh & Susquehanna R. R.	Repairs and maintenance	200,000
Port Angeles Western R. R.	Extension	4,800,000
Quebec Extension Ry.	Maintenance	50,000
Santa Fe, San Juan & Northern R. R.	Rail, repairs and equipment	10,000,655
Seaboard Air Line	Bridge structure	20,000
St. Johnsbury & Lake Champlain R. R.	Rail and fastenings	1,445,000
St. Louis-San Francisco R. R.	Maintenance	87,000
Tallullah Falls Ry.	Rail and fastenings	110,000
Tennessee Central	Extension	5,000,000
Waco, Beaumont, Trinity & Sabine R. R.	Equipment	225,000
Wilkes & Western R. R.	Rail and fastenings	25,000
West River R. R.	Extension	250,000
Wisconsin Central		
Wyoming-Montana R. R.		79,404,900

February 15 which includes a list of the applications pending before the Division of Transportation loans on that date. Specific allotments have now been made to 30 railroads and this list shows 31 more which had filed applications on which no allotments have been announced to date. The list itself included 40 roads, 7 of which have since received allotments, and 2 of which have received allotments of part of the amount asked. The report shows also that as of December 31 there were 61 railroad applications, aggregating \$152,343,152. The accompanying list of applications as of February 15 on which allotments have not yet been made or which were greater in amount than the allotments subsequently announced includes applications for rails and fastenings for which requests will be filled, insofar as possible, out of the \$41,000,000 blanket allotment already made for that purpose.

LOCOMOTIVES

THE UNITED STATES NAVY DEPARTMENT has ordered from the American Locomotive Company two 300-hp., 57-ton Diesel locomotives for service at Mare Island, Cal., Navy Yard.

FREIGHT CARS

THE CENTRAL OF GEORGIA is inquiring for 200 hopper cars of 70 tons' capacity.

THE SEABOARD AIR LINE is inquiring for 10 box car underframes. This is in addition to its inquiry for 1,000 double sheathed

50-ton box cars reported in the *Railway Age* of March 31.

THE DONNER-HANNA COKE CORPORATION has given a contract to the Pressed Steel Car Company for making repairs to 100 steel hopper cars.

THE CARNEGIE STEEL COMPANY has given an order to the Canton Car Company for repairs to be made to 31 hopper cars of 55 tons' capacity.

THE GULF, MOBILE & NORTHERN has ordered 100 box cars and parts for 50 box

cars and 50 gondola cars from the American Car & Foundry Co. The railroad will build the 50 box and 50 gondola cars in its own shops. Inquiry for this equipment was reported in the *Railway Age* of February 24.

IRON AND STEEL

THE NEW YORK, ONTARIO & WESTERN has ordered 4,725 tons of 90-lb. rail from the Bethlehem Steel Company.

THE BOSTON & ALBANY has given a contract to the Phoenix Bridge Company for 500 tons of steel for a bridge at West Newton, Mass.

THE NORFOLK & WESTERN has placed orders for 10,000 tons of 131-lb. steel rail divided as follows: Carnegie Steel Company, 7,500 tons; Bethlehem Steel Company, 2,500 tons.

THE CANADIAN PACIFIC has let contracts for 25,000 tons of rail as follows: To the Algoma Steel Corporation, 9,000 tons of 85-lb. rail and 12,000 tons of 100-lb. rail; to the Dominion Steel & Coal Corporation, 4,000 tons of 85-lb. rail.

THE GREAT NORTHERN has allocated orders for 20,000 tons of 110-lb. Great Northern section, intermediate manganese steel rail and fastenings; the rail and bar orders were divided among the Illinois Steel Company, the Inland Steel Company and the Bethlehem Steel Company; other fastenings were distributed with various steel mills and manufacturers. Deliveries

Continued on next left-hand page

**REPAIRING
MEANS
ONE THING**

**REBUILDING
MEANS
QUITE ANOTHER**

RECLAIMING unserviceable superheater units, by making shop repairs, can be done for a comparatively low first cost. That first cost, however, more often becomes insignificant when compared to the charges for roundhouse maintenance and possible engine failures. Besides, there's no telling what the losses will amount to, on account of lowered efficiency from probable restrictions of unit areas likely to result from repairs.

Rebuilding unserviceable superheater units, on the other hand, is a guarantee against costly maintenance or

failures in operation rebuilt superheater units are practically equal to new units in every detail. When your locomotives go to shop, you can have all those old unserviceable units rebuilt through the Elesco unit remanufacturing service at about half the cost of new units.

When considered that rebuilt superheater units give efficiency and reliability in operation for another period of 8 to 10 years, the Elesco unit remanufacturing service is unquestionably the logical method for reconditioning superheater units and the cost is extremely low.

The Superheater Company

Representative of AMERICAN THROTTLE COMPANY, Inc.

60 East 42nd Street
NEW YORK

A-867

Canada: The Superheater Company, Limited, Montreal

Superheaters - Feed Water Heaters - Exhaust Steam Injectors - Superheated Steam Pyrometers - American Throttles



Peoples Gas Building
CHICAGO

are to be made during April, May and June.

THE NEW YORK, NEW HAVEN & HARTFORD has ordered 25,000 tons of rail; 5,000 from the Carnegie Steel Company and 20,000 from the Bethlehem Steel Company. An order for track material to cost \$300,000 has also been divided among the Carnegie Steel Company, the Bethlehem Steel Company and other companies.

MISCELLANEOUS

Air-Conditioning

The Boston & Maine and the Maine Central placed orders recently for air-conditioning materials to be installed in four dining cars, four combination deluxe smoking cars and nine deluxe coaches. Ice will be used for cooling the cars; on the four dining cars for the Boston & Maine equipment of the Railways Company will be installed. On four combination deluxe smoking cars and nine deluxe coaches equipment furnished by the B. F. Sturtevant Company will be installed.

Financial

ATCHISON, TOPEKA & SANTA FE.—*Abandonment.*—The Interstate Commerce Commission has denied this company and the Gulf, Colorado & Santa Fe authority to abandon a branch extending from Davis, Okla., to Sulphur, 9 miles.

BALTIMORE & OHIO.—*Abandonment.*—This company has applied to the Interstate Commerce Commission for authority to abandon the operation of the line of the Reynoldsville & Falls Creek, from Falls Creek, Pa., to Soldier Mine Junction, 12 miles.

BOSTON & MAINE.—*Stock.*—Division 4 of the Interstate Commerce Commission has authorized this company to issue \$16,348,000 of 7 per cent prior-preference stock to be exchanged for mortgage bonds at the rate of five shares of stock for each \$500 of bonds.

CHESAPEAKE & OHIO.—*To Absorb C. & O. of Indiana.*—The stockholders of this company meeting in Richmond, Va., on April 17, approved the proposal of the directors that the Chesapeake & Ohio of Indiana, which is controlled by stock ownership, be amalgamated with the parent company in the interest of economy.

CHICAGO GREAT WESTERN.—*Abandonment and Operation.*—The Interstate Commerce Commission has authorized this company to abandon that part of its line between Altura, Minn., and Rollingstone, 8.7 miles. It has been serving this section by operation under trackage rights over the Chicago & North Western, the Chicago, Burlington & Quincy and the Winona Bridge Ry., but had retained the line in question so that it might be rehabilitated if any question should arise over its trackage rights.

CHICAGO & NORTH WESTERN.—*Annual Report.*—The 1933 annual report of this company shows net deficit, after interest and other charges, of \$7,875,419, as compared with net deficit of \$11,216,820 in 1932. Selected items from the income statement follow:

	1933	1932	Increase or Decrease
Average mileage operated	8,441.12	8,442.61	-1.49
RAILWAY OPERATING REVENUES	\$73,394,501	\$72,491,521	+\$902,980
Maintenance of way	9,559,665	10,171,867	-612,202
Maintenance of equipment	14,649,653	14,016,140	+633,512
Transportation	28,133,362	30,619,797	-2,486,434
TOTAL OPERATING EXPENSES	57,714,969	60,604,420	-2,889,451
Operating ratio	78.64	83.60	-4.96
NET REVENUE FROM OPERATIONS	15,679,532	11,887,101	+3,792,431
Railway tax accruals	6,875,103	7,390,285	-515,182
Equipment rents—Net	2,551,661	2,792,230	-240,569
Joint facility rents—Net	191,940	254,298	-62,358
NET RAILWAY OPERATING INCOME	6,031,714	1,422,836	+4,608,878
Non-operating income	3,442,155	4,343,387	-901,232
GROSS INCOME	9,473,869	5,766,223	+3,707,646
Interest on funded debt	16,020,286	15,972,088	+48,198
NET DEFICIT	\$7,875,419	\$11,216,820	-\$3,341,402

CHICAGO GREAT WESTERN.—*Annual Report.*—The 1933 annual report of this company shows net deficit, after interest and other charges, of \$523,188, as compared with net deficit of \$1,365,466 in 1932. Selected items from the income statement follow:

	1933	1932	Increase or Decrease
Average Mileage Operated	1,518.75	1,495.92	+22.83
RAILWAY OPERATING REVENUES	\$14,575,180	\$15,159,400	-\$584,220
Maintenance of way	1,820,822	2,380,745	-559,924
Maintenance of equipment	1,971,249	2,017,291	-46,041
Transportation	5,382,553	5,826,723	-116,771
TOTAL OPERATING EXPENSES	10,322,113	11,615,250	-1,293,137
Operating ratio	70.82	76.62	-5.80
NET REVENUE FROM OPERATIONS	4,253,067	3,544,150	+708,917
Railway tax accruals	.675,535	821,722	-146,188
Railway operating income	3,572,524	2,719,622	+852,902
Equipment rents—net Dr.	1,402,241	1,404,360	-2,120
Joint facility rents—net Dr.	889,369	911,484	-22,115
NET RAILWAY OPERATING INCOME	1,280,914	403,778	+877,136
Non-operating income	175,553	176,523	-970
GROSS INCOME	1,456,467	580,301	+876,167
Rent for leased roads	79,182	77,785	+1,397
Interest on funded debt	1,787,206	1,758,549	-1,681
TOTAL DEDUCTIONS FROM GROSS INCOME	1,979,656	1,945,766	+33,890
NET DEFICIT	\$523,188	\$1,365,466	-\$842,277

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—*Abandonment.*—This company has applied to the Interstate Commerce Com-

mission for authority to abandon its branch line from Babcock, Wis., to Norway, 15.84 mi.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—*Bonds.*—The Interstate Commerce Commission has authorized this company to extend from June 1 this year until June 1, 1939, the maturity of \$2,155,000 Milwaukee & Northern bonds and \$5,092,000 of its consolidated mortgage bonds, and to assume liability for principal and interest therefor.

CHICAGO, ROCK ISLAND & PACIFIC.—*Abandonment.*—The Interstate Commerce Commission has authorized this company and its trustees to abandon a branch line extending from Wilton, Iowa, to Muscatine, 11.9 miles.

CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA.—*Annual Report.*—The 1933 annual report of this company shows net deficit, after interest and other charges, of \$1,060,225, as compared with net deficit of \$2,864,234 in 1932. Selected items from the income statement follow:

	1933	1932	Increase or Decrease
Average mileage operated	1,702.69	1,739.94	-34.25
RAILWAY OPERATING REVENUES	\$14,527,599	\$14,831,762	-\$304,162
Maintenance of way	1,484,302	2,380,676	-896,374
Maintenance of equipment	2,195,377	2,636,316	-440,939
Transportation	6,268,811	6,787,698	-518,887
TOTAL OPERATING EXPENSES	11,206,511	13,039,864	-1,833,353
Operating ratio	77.14	87.92	-10.78
NET REVENUE FROM OPERATIONS	3,321,088	1,791,897	+1,529,191
Railway tax accruals	936,849	959,252	-22,403
Equipment rents—Net	478,966	485,113	-6,146
Joint facility rents—Net	360,486	350,144	+10,341
NET RAILWAY OPERATING INCOME	1,537,544	*10,892	+1,548,435
Non-operating income	89,539	111,458	-21,919
GROSS INCOME	1,627,082	100,566	+1,526,516
Interest on funded debt	2,444,607	2,627,213	-182,606
NET DEFICIT	\$1,060,225	\$2,864,234	-\$1,804,008

* Deficit.

CHRISTIE & EASTERN.—*Abandonment.*—This company has applied to the Interstate Commerce Commission for authority to abandon its line from Peason, La., to Red River & Gulf Junction, 5 mi.

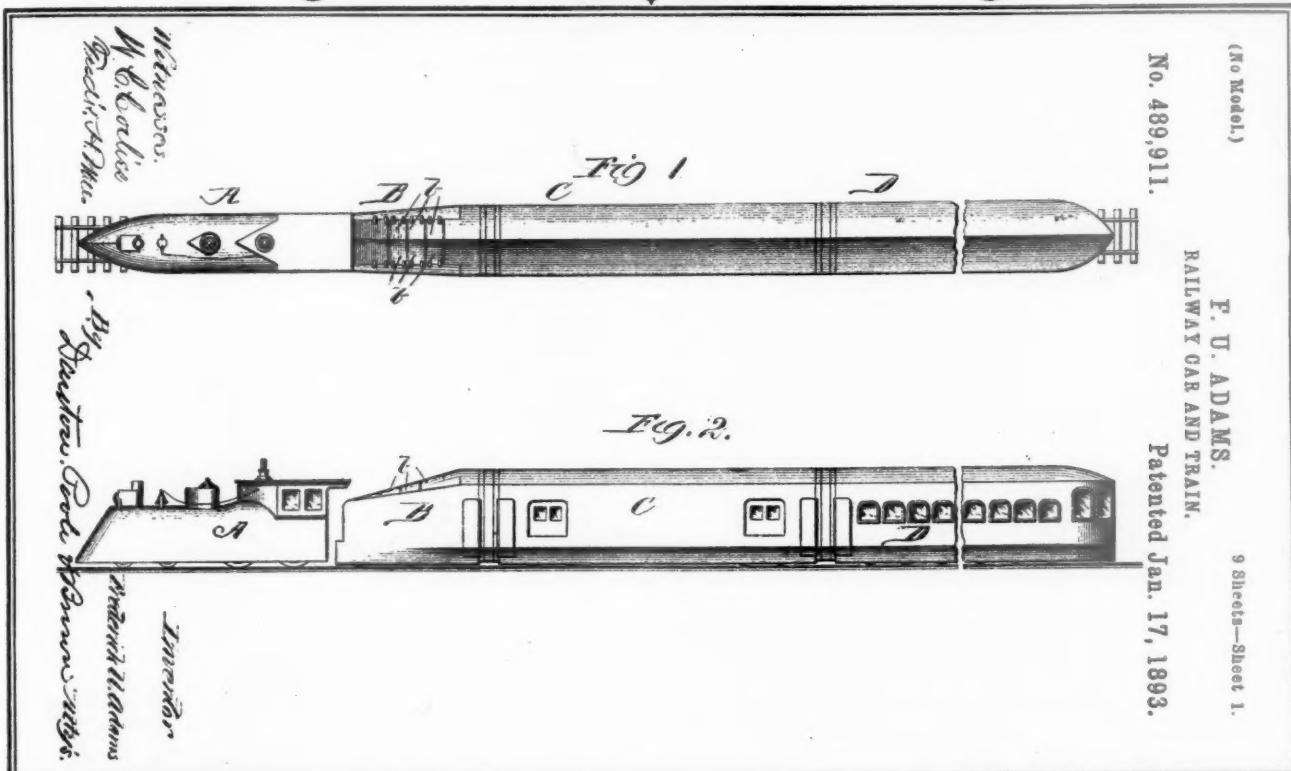
DENVER & RIO GRANDE WESTERN.—*Annual Report.*—The 1933 annual report of this company shows net deficit, after interest and other charges, of \$2,138,953, compared with net deficit of \$2,584,210 in 1932. Selected items from the income statement follow:

	1933	1932	Increase or Decrease
Average mileage operated	2,497.27	2,531.84	-34.57
RAILWAY OPERATING REVENUES	\$17,112,794	\$17,560,621	-\$447,827
Maintenance of way	1,640,260	1,822,743	-181,783
Maintenance of equipment	3,460,148	3,619,224	-159,076
Transportation	5,366,293	5,690,025	-323,733

Continued on next left-hand page

40 YEARS AGO

*Everything Streamlined
But the Bell Rope ...*



It is mighty interesting right now to note patent No. 489911 granted to F. U. Adams on January 17, 1893 covering a Railway Car and Train.

Quoting from the patent paper, "This invention has reference to the construction of railway trains with the primary object of diminishing atmospheric resistance to their movement and with the ultimate object of making a higher speed of such trains attainable with a given expenditure of motive power."

Note the smooth canopy construction attained by the continuous outer surface, closing up the gaps between the cars. Even the apron covering the trucks extends right to the end giving the effect of one long car. Note the vacuum drag — also the front end construction of the locomotive which fairly splits the wind — also the sand box and cab. In fact, everything streamlined except the bell rope.

It seems odd that Mr. Adams, over 40 years ago, came so close to the designs that are attracting so much attention today.



AMERICAN LOCOMOTIVE COMPANY
30 CHURCH STREET NEW YORK N.Y.

TOTAL OPERATING EXPENSES	11,887,424	12,710,507	-823,083
NET REVENUE FROM OPERATIONS	5,225,370	4,850,114	+375,256
Railway tax accruals	1,760,000	1,905,000	-145,000
Hire of equipment—Net Dr.	401,332	429,164	-27,831
Joint facility rents—Net Dr.	299,296	303,681	-4,385
NET RAILWAY OPERATING INCOME	3,357,643	2,814,269	+543,374
Non-operating income	115,198	*9,005	+106,193
GROSS INCOME	3,242,445	2,805,265	+437,181
Interest on funded debt	5,381,398	5,389,475	-8,076
NET DEFICIT	\$2,138,953	\$2,584,210	-\$445,257

* \$65,465.72 interest on two-year notes transferred to "Interest on Funded Debt" for comparison.

NEW YORK CENTRAL.—B. & A. Bonds.—The Interstate Commerce Commission has authorized the Boston & Albany to issue \$4,500,000 of refunding bonds of 1934, to be delivered to the New York Central at par in reimbursement of advances from the parent company to pay at maturity an equivalent issue of improvement bonds of the B. & A.

NEW YORK CENTRAL.—Big Four and Michigan Central Bonds.—The Interstate Commerce Commission has authorized the Cleveland, Cincinnati, Chicago & St. Louis to issue \$3,205,000 of refunding and improvement mortgage, series D bonds, to be delivered to the New York Central in reimbursement for its paying at maturity a like amount of 6 per cent bonds of the Big Four. The Michigan Central has been authorized similarly to issue \$6,171,000 of refunding and improvement mortgage, series A bonds to be delivered to the New York Central in partial reimbursement for its payment at maturity of \$10,754,659 of the Michigan Central's equipment obligations.

NEW YORK, NEW HAVEN & HARTFORD.—Abandonment.—This company has applied to the Interstate Commerce Commission for authority to abandon its line from Bellingham Junction, Mass., to Woonsocket Junction, 4.9 mi.

NEW YORK, ONTARIO & WESTERN.—Notes.—Division 4 of the Interstate Commerce Commission has authorized an issue of \$235,000 of 4 per cent registered serial collateral notes to aid in the financing of proposed maintenance.

PENNSYLVANIA.—Bonds.—The Interstate Commerce Commission has authorized the Cleveland & Pittsburgh to reduce the interest on \$3,597,000 of its bonds which are held by the Pennsylvania from 5 per cent to 4½ per cent, and the P.R.R. is authorized to sell them to Kuhn, Loeb & Co., at 99¾, making the annual cost approximately 4.153 per cent.

SEABOARD AIR LINE.—Abandonment.—Examiner C. P. Howard of the Interstate Commerce Commission has recommended in a proposed report that the commission find that public convenience and necessity are not shown to permit the receivers to abandon the operation of the Georgia, Florida & Alabama, a 192-mile line in Georgia and Florida, which was leased to

the Seaboard for 99 years, effective January 1, 1928. Orders had been entered by courts in Virginia and Florida in May, 1933, directing the receivers of the Seaboard to disaffirm the lease but to continue the operation of the property in the interest of the public and the G. F. & A. company, but the G. F. & A. interest refused to accept a formula proposed for the accounting and the S. A. L. receivers were unwilling to continue to operate the property on an indefinite basis. The examiner says that it has not been shown that the operation has resulted or will result in a loss to the applicants and that it is clear that the public convenience and necessity represented by the interest of the communities served require the continued operation of the line. He also says it has now been shown that the G. F. & A., its receivers, or any one else, other than the Seaboard receivers could operate the company under present conditions.

SOUTHERN.—Equipment Trust.—Freeman & Co., New York, are making a public offering of \$2,706,000 of 4½ per cent series C equipment trust certificates of this company maturing from 1937 to 1944 at prices to yield from 3.8 to 4.2 per cent. The issue was authorized originally by the Interstate Commerce Commission in 1929.

VIRGINIAN.—Annual Report.—The 1933 annual report of this company shows net income, after interest and other charges, of \$2,956,652, as compared with net income of \$2,074,399 in 1932. Selected items from the income statement follow:

	1933	1932	Increase or Decrease
Average mileage operated	614.15	608.14	+6.01
RAILWAY OPERATING REVENUES	\$13,433,773	\$12,818,969	+\$614,803
Maintenance of way	1,160,811	1,256,614	-95,803
Maintenance of equipment	2,394,720	2,408,029	-13,309
Transportation	2,446,810	2,547,562	-100,752
TOTAL OPERATING EXPENSES	6,520,505	6,769,015	-248,511
Operating ratio	48.54	52.80	-4.26
NET REVENUE FROM OPERATIONS	6,913,268	6,049,954	+863,314
Railway tax accruals	1,620,000	1,655,000	-35,000
Railway operating income	5,292,483	4,394,820	+897,663
Equipment rents—Net	775,595	760,789	+14,806
Joint facility rents—Net	48,586	40,482	+8,104
NET RAILWAY OPERATING INCOME	6,116,664	5,196,092	+920,573
Non-operating income	1,076,303	1,060,826	+15,477
GROSS INCOME	7,192,967	6,256,918	+936,049
Rent for leased roads	916,134	827,706	+88,428
Interest on funded debt	3,187,849	3,224,171	-36,322
NET INCOME	\$2,956,652	\$2,074,399	+\$882,253

Dividends Declared

Bangor & Aroostook.—Common, 62c, quarterly; Preferred, \$1.75, quarterly, both payable July 2 to holders of record May 31.

Average Prices of Stocks and of Bonds

	Last Apr. 17	Last week	Last year
Average price of 20 representative railway stocks..	47.05	47.73	24.36
Average price of 20 representative railway bonds..	79.97	79.66	53.18

Railway Officers

EXECUTIVE AND FINANCIAL

Gerrit Fort, who resigned as vice-president in charge of traffic of the Boston & Maine in October, 1927, to accept another position, has returned to the Boston & Maine as executive assistant, with headquarters at Boston, Mass. Mr. Fort is also president of the Mystic Terminal Company, the waterfront terminal facilities of the Boston & Maine at Boston, Mass.

H. H. Meek, who has been appointed assistant to vice-president of the Railway Express Agency, Inc., with headquarters at Chicago, has been connected with this company and its predecessors for 49 years. He was born on November 1, 1866, at Keosauqua, Iowa, and entered the service of the American Express Company on May 7, 1885, as a messenger at Keokuk, Iowa. Later he was appointed depot agent and on January 1, 1893, he went with the Adams Express Company as depot agent at Burlington, Iowa. Four years later Mr.



H. H. Meek

Meek returned to the American Express Co., and served as a driver, cashier, depot agent, route agent and agent at various points until October 1, 1910, when he was made chief clerk to the superintendent at Memphis, Tenn. Two years later he was sent to St. Louis, Mo., as chief clerk to the manager and on May 5, 1915, he was advanced to superintendent of the Missouri division, with headquarters at Kansas City, Mo. On July 1, 1918, following the unification of the services of the various express companies, Mr. Meek was appointed superintendent of the American Railway Express Company at Memphis, Tenn. On February 1, 1928, he was made superintendent of organization at St. Louis and remained in that position after the company became known as the Railway Express Agency, Inc., in 1929. On October 1, 1932, he was transferred to Chicago, where he was located at the time of his appointment as assistant to vice-president, effective April 1.

B. F. Russell, assistant auditor of freight accounts of the Louisville & Nash-

Continued on next left-hand page

Minimize Highway Crossing Accidents-

~~—by installing the "Union" HC-8 Flashing Light Highway Crossing Signal with backlight. There is no mistaking the warning conveyed to highway traffic by this signal.~~

Fewer accidents—fewer claims—fewer delays—fewer worries—less operating and maintenance expense—result from its installation.

Ask our nearest district office for details.

R. SCHOLLER-34



1881

Union Switch & Signal Co.

SWISSVALE, PA.

1934

NEW YORK

MONTRÉAL

CHICAGO

ST. LOUIS

SAN FRANCISCO

ville, at Louisville, Ky., has been promoted to auditor of freight accounts, succeeding **Hugh B. Cutter**, deceased.

OPERATING

G. S. Jessup has been appointed assistant general manager of hotels for the Canadian National, with headquarters at the Chateau Laurier Hotel, Ottawa, Ont.

F. C. Sharpe, assistant superintendent on the Manitoba district of the Canadian Pacific, with headquarters at Minnedosa, Man., has been appointed acting superintendent of the Kootenay division, with headquarters at Nelson, B. C., replacing **W. Manson**, who has been transferred.

Walter Reese, who has been appointed general manager of the Railway Express Agency, Inc., at St. Paul, Minn., as noted in the *Railway Age* of April 7, was born on September 22, 1883, at Owensboro, Ky., and entered the service of the American Express Company on June 20, 1904, as



Walter Reese

correspondent at Memphis, Tenn. On October 1 of the following year he was appointed a clerk in the superintendent's office at the same location and in 1908 he was made route agent at Yazoo City, Miss., later being transferred to Memphis. On March 1, 1912, Mr. Reese was advanced to chief clerk to the superintendent at the same point and after three years in this capacity he was sent to St. Louis, Mo., as secretary to the manager, being made assistant to the manager in the following year. On June 1, 1918, he was further promoted to assistant to the vice-president at St. Louis, which position he continued to hold through the various reorganizations of the company from which developed the Railway Express Agency, Inc., in 1929. In 1932 he was transferred to Chicago where he remained until his appointment as general manager at St. Paul, effective April 1.

Charles E. Sainsbury, who has been appointed assistant general superintendent, Lines West, of the Chicago & North Western, with headquarters at Norfolk, Neb., as noted in the *Railway Age* of March 31, has served with various railroads over a period of 42 years. He was born at Lamoille, Minn., on November 16, 1877, and was educated at the University of Minnesota, graduating in 1903. He

entered railway service on August 1, 1892, with the Chicago, Milwaukee & St. Paul (now the C. M. St. P. & P.), serving in-



Charles E. Sainsbury

termittently while he attended school, as a telegraph operator, clerk and agent with this road, the Northern Pacific and other lines. Mr. Sainsbury entered the service of the North Western on July 1, 1906, as a train dispatcher, subsequently being promoted to chief train dispatcher and to trainmaster. On June 1, 1924, he was further promoted to assistant superintendent at Milwaukee, Wis., which position he was holding at the time of his recent promotion to assistant general superintendent at Norfolk, effective April 1.

TRAFFIC

S. E. Leger, district freight agent of the Canadian National, with headquarters at Montreal, has been appointed division freight agent at the same point, succeeding **V. G. Snell**, deceased. **E. C. Champ** has been appointed to replace Mr. Leger as district freight agent at Montreal.

E. W. Dozier, assistant traffic manager of the American Short Line Railroad Association, with headquarters at Washington, D. C., has been appointed traffic manager for all territories except Southern, with the same headquarters. **J. P. Blanton**, assistant traffic manager, with headquarters at Atlanta, Ga., has been appointed traffic manager of the southern territory at the same headquarters and **J. H. Jester** has been appointed assistant traffic manager, southern territory, with headquarters at Atlanta.

ENGINEERING AND SIGNALING

C. J. Geyer, assistant to the vice-president in charge of operations of the Chesapeake & Ohio, with headquarters in Richmond, Va., has been appointed engineer, maintenance of way, at that point, to succeed **James E. King**, who died on March 29.

PURCHASES AND STORES

J. J. Bennett, assistant purchasing agent of the Illinois Central, with headquarters at Chicago, has resigned from the service of that road.

As announced in the *Railway Age* of April 14, page 564, **C. E. Walsh** has been appointed general purchasing agent of the Pennsylvania, with headquarters at Philadelphia, Pa., and **E. J. Lamneck** has been appointed purchasing agent at the same point to succeed him. Mr. Walsh was born at Uhrichsville, Ohio, on September 20, 1882. He started his railway career as storeroom clerk for the Pittsburgh, Cincinnati, Chicago & St. Louis (now part of P. R. R.) in May, 1899. Subsequently, from November, 1901, to January, 1913, he served with the Pennsylvania in various clerical positions in the office of the purchasing agent, as assistant chief clerk to the purchasing agent, and as chief clerk in the same department. In June, 1914, he was appointed assistant purchasing agent at Pittsburgh, Pa. Mr. Walsh was placed in charge of the purchasing department of the Pennsylvania, Lines West of Pittsburgh, from February, 1918, until March, 1919, during the absence of the purchasing agent. In March, 1920, Mr.



C. E. Walsh

Walsh became assistant purchasing agent of the Central region, with headquarters in Pittsburgh, and in January, 1924, he was transferred in the same capacity to Philadelphia. He was promoted to purchasing agent of the Pennsylvania, the Long Island and the Baltimore & Eastern in January, 1927, serving in that position until his recent promotion.

E. J. Lamneck was born at Gnadenhutten, Ohio, on June 27, 1887. He entered railway service in July, 1907 as a truck builder in the motive power department of the Pittsburgh, Cincinnati, Chicago & St. Louis (now P. R. R.) at Scully, Pa. He became clerk in 1910 and in 1914 he was transferred to the purchasing department of the Pennsylvania at Pittsburgh. He served at the latter point in various positions until 1918, when he was appointed chief clerk. In 1920 he became office assistant to purchasing agent at Pittsburgh, and the following year he became assistant to the purchasing agent at the same point. He was transferred to Philadelphia in the same position in 1924 and in 1926 he was appointed stationery storekeeper at Pittsburgh. In 1927, Mr. Lamneck was re-appointed assistant to the purchasing agent at Philadelphia and the following year he was ad-

Continued on next left-hand page



APPLICATION of HUNT-SPILLER Air Furnace GUN IRON Crosshead Shoes has helped many railroads to eliminate many items formerly entered on locomotive inspection reports.

Their wear-resisting properties have proved to be a big factor in the prevention of those disastrous crosshead pounds which shorten the service life of many parts underneath the boiler.

Guides, wrist pins, rod bearings, pistons and many other moving parts wear longer and require less attention — the savings in cross-head maintenance alone show a big return on the investment.

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J.G. Platt, Pres. & Gen. Mgr. V.W. Ellet, Vice-President

Office & Works

383 Dorchester Ave. South Boston, 27, Mass.

Canadian Representative: Joseph Robb & Co., Ltd., 70 North Bank Rd., Montreal, P. Q.
Export Agent for Latin America:
International Rwy. Supply Co., 30 Church Street, New York, N. Y.

HUNT-SPILLER GUN IRON

vanced to the position of assistant purchasing agent. Mr. Lamneck was further promoted to fuel purchasing agent in June,



E. J. Lamneck

1929, serving in that position continuously until he took over his new duties as purchasing agent on April 16.

SPECIAL

Dr. J. E. Pulver, district surgeon for the Chicago & North Western at Omaha, Neb., has been appointed chief surgeon, with headquarters at Chicago, to succeed Dr. C. W. Hopkins, who has retired.

E. B. DeVilbiss, assistant stores manager of the Pennsylvania, with headquarters at Philadelphia, Pa., has been appointed manager of the company's insurance department. **W. H. Sechrist** and **J. R. Peters** have been appointed assistant managers of the insurance department, with headquarters at Philadelphia.

Mr. DeVilbiss was born at Fort Wayne, Ind., on September 13, 1884. He was educated in the public schools of that city and was graduated from the school of mechanical engineering of Purdue University in June, 1908. While attending the University, Mr. DeVilbiss served during the summer vacations in the locomotive shops of the Wabash. In July, 1908, he



E. B. DeVilbiss

entered the service of the Pennsylvania as special apprentice at Ft. Wayne, completing his apprenticeship in January, 1911,

when he was appointed motive power inspector at the same point. He was further advanced to electrical engineer of the North West system in April, 1912, and in June, 1915, he became assistant engineer of motive power of the Central system at Toledo, Ohio. He was appointed to the same position on the Pennsylvania Lines West of Pittsburgh, in October, 1917, and continued in that capacity under the United States Railroad Administration during the period of federal control. At the end of this period, Mr. DeVilbiss was appointed superintendent of motive power of the Eastern Ohio division of the Pennsylvania, with headquarters at Pittsburgh. In March, 1921, due to a re-adjustment of forces, he was appointed master mechanic of the Eastern division and in June, 1924, he was appointed superintendent of motive power of the Central Pennsylvania division at Williamsport, Pa. Mr. DeVilbiss was transferred in the same capacity to the New Jersey division, with headquarters at New York, in April, 1928, serving in that position until June, 1929, when he was appointed assistant stores manager, the position he held at the time of his recent promotion.

OBITUARY

Samuel H. Sykes, who retired on December 31, 1922, as a district engineer on construction for the Canadian Northern Pacific (part of the Canadian National), died on March 16 at Vancouver, B. C. At the time of his retirement Mr. Sykes had been active in railway engineering work in Canada and the United States for 54 years. He was born on March 2, 1848, at Dublin, Ireland, and emigrated to Canada in 1868, where he became engaged on the location survey for the Whitby & Port Perry (now part of the C. N. R.). Later he was associated with the survey of a projected railroad in Ohio and a survey in Ontario for the Canada Southern. In 1883, he became a division engineer on location and construction for the Canadian Pacific and then engaged for a time in survey work for various railways in the United States. In October, 1898, he entered the service of the Canadian Northern (now part of the C. N. R.) as a resident engineer on construction, serving as a locating engineer, division engineer on location and construction, and assistant chief engineer on location and construction. In November, 1917, he was appointed office engineer at Toronto, Ont., and in January, 1920, he was made district engineer on construction for the Canadian Northern Pacific. He retired from active service three years later.

John B. Nessle, freight traffic manager of the Pittsburgh & Lake Erie, whose death on April 7 was announced in the *Railway Age* of April 14, was born at Woodworth, Ohio, on June 20, 1870. He entered railway service in December, 1886, and until April 1, 1887, was a telegraph operator on the Pittsburgh & Lake Erie at Shannopin, Pa. He served as telegraph operator and clerk at Struther's, Ohio, from April, 1887, to April, 1888, and from the latter date until April, 1889, he served in the same capacity at Lowellville, O.

He then became agent at Struther's and in 1892, he became car tracer at Pittsburgh, Pa. Mr. Nessle was appointed freight agent at McKeesport, Pa., in December, 1900, and in 1904 he was transferred to Brownsville, Pa., as commercial agent. Two years later he became general agent at Pittsburgh. From October, 1907, until January, 1910, he served as assistant general freight agent at Pittsburgh and from the latter date until September, 1911, he was general freight agent. Mr. Nessle left the service of the Pittsburgh & Lake Erie in September, 1911, to become general coal and ore agent for the New York Central lines at Pittsburgh, returning to the P. & L. E. in March, 1914, as general freight agent. He was advanced to the position of freight traffic manager in February, 1920, the position he held at the time of his death.

George Francis Brownell, vice-president and advisory counsel of the Erie, died of pneumonia at his home in New York on April 15, at the age of 72. Mr. Brownell was born at Des Moines, Iowa, on June 5, 1861. He was educated at Medina Academy, Medina, N. Y., and the Lockport, (N. Y.) Union school and was graduated from the University of Michigan in 1883 with an LL.B. degree, receiving a similar degree from the Albany Law School in 1892. He was admitted to the bar in 1882 and in the following year entered the service of the Erie. He be-



George Francis Brownell

came a member of the firm of Sprague, Marcy & Sprague, of Buffalo, N. Y. (now Moot, Sprague, Brownell, Marcy & Carr) in 1888. Mr. Brownell came to New York as general solicitor in charge of the Erie's legal department in 1897 and in January, 1904, he was appointed vice-president and general solicitor. He was appointed vice-president and general counsel in charge of the legal and financial departments in 1919, serving continuously in that capacity until July, 1931, when he retired from active service under the retirement rules of the company and was appointed vice-president and advisory counsel by the board of directors in order that he might continue to give the road the benefit of his advice and counsel. Mr. Brownell had been a member of the board of directors of the company since 1915 and of its executive committee since 1916.

Annual Report

Delaware, Lackawanna & Western Railway Company

New York, April 2nd, 1934.

TO THE STOCKHOLDERS OF

THE DELAWARE, LACKAWANNA AND WESTERN RAILROAD CO.:

A report of the results from operation of the Railroad and other property of your Company for the calendar year 1933, showing comparisons with the previous year, important property changes and other matters of interest, is respectfully submitted:

Operating Results

The violent downward trend in operating revenues that prevailed in 1931 and 1932 was less pronounced in 1933.

There was marked improvement in traffic movement during the mid-year months. The operating revenues for the months of June to September, inclusive, exceeded those of the same period of 1932 by \$1,293,127. However, earnings fell off sharply in October, while the revenues of November and December were equal approximately to those of the same months in the previous year.

The traffic carried by your railroad in 1933 was only slightly more than one-half of its normal capacity, as indicated by the fact that the average annual operating revenues of the Company for the five years ended December 31, 1929 were \$84,000,807, while revenues earned in 1933 amounted to \$43,339,279, a decrease of 48.4 per cent.

Revenues from the transportation of anthracite coal in 1933 show a decrease of \$1,080,031, compared with 1932, which reduction is attributable in large measure to strikes in the anthracite industry brought about by inter-union disagreements at a time when the anthracite traffic usually is at its peak.

Revenues from coal traffic were depleted further by reductions in freight rates to various regions. The principal reductions upon prepared sizes were as follows:

Chicago Territory, \$1 per gross ton, effective April 1, 1933.

Long Island Territory, 30c per gross ton, effective August 11, 1933.

New England Territory, 15c to 91c per gross ton, effective August 11, 1933.

Westchester County, N. Y., 13c to 75c per gross ton, effective August 11, 1933.

Revenues from other freight transportation were slightly less than in the previous year. The general increase in freight rates under the Marshalling and Distributing Plan authorized by the Interstate Commerce Commission, effective January 4, 1932, and to be terminated March 31, 1933, was extended to September 30, 1933. Had this tariff been continued until the close of the year \$200,000 additional revenue would have been realized. The amount collected under the emergency tariff and advanced to The Railroad Credit Corporation pursuant to the terms of the agreement with it was \$1,202,198.

Passenger revenues suffered a very substantial reduction in 1933. The decrease from the previous year was \$924,224, or 12.5 per cent. As stated in previous reports, the decline in passenger traffic was due to the depression in business, increased use of private automobiles and competition from other forms of unregulated transportation.

Revenues from transporting United States Mail were approximately 4 per cent less than in the previous year.

Revenues from Express service decreased 23.8 per cent in 1933, compared to a decrease of 36.2 per cent in 1932.

Vigorous competition from other forms of unregulated transportation and from the United States Parcels Post diverted a large tonnage of package freight from the Railway Express service.

Revenues from transportation of milk decreased \$561,802, or 27.7 per cent. The principal cause was a reduction of 14 per cent from January 1st to May 31st in tariff rates on shipments in tank cars, constituting approximately 52 per cent of the entire milk traffic, and effective June 1st there was a further reduction applicable to all milk shipments, bringing the total reduction to 19 per cent.

Revenues from transportation of local passengers and vehicles over the Company's ferries operated in the North River between New Jersey and New York City points were \$1,354,105, a decrease of \$69,806, or 4.9 per cent.

The decline in incidental revenues is the result of various de-

creases, chief of which were the reduction of \$61,098 in collections for car demurrage, due to more prompt release of cars by shippers, and a decrease of \$40,724 in miscellaneous rentals, due to adjustments necessary to hold tenants.

Operating Expenses

A statement of operating expenses by primary accounts showing increases and decreases in comparison with the previous year is included on pages 16 to 19.

The total cost of operation in 1933 was \$34,777,127, a decrease of \$2,278,452, or 6.2 per cent, and a decrease of \$25,352,144, or 42.2 per cent, when compared with average operating expenses of the five years ended December 31, 1929.

During the year 146,889 cross ties were laid in replacement compared to 159,035 laid the previous year.

A comparative statement of rail tonnages laid in replacement and tons of rock ballast applied during the last fourteen calendar years follows:

Year	Tonnage 130 lbs. to Yard	Tonnage 118 lbs. to Yard	Tonnage 105 lbs. to Yard	Tonnage 80 lbs. to Yard	Tonnage All Weights	Total Rock Ballast
1920.....	.....	.....	16,297	2,944	19,241	117,676
1921.....	.....	.....	19,572	1,283	20,855	178,733
1922.....	.....	.....	11,604	1,245	12,849	134,133
1923.....	.....	.....	14,199	2,308	16,507	71,661
1924.....	.....	9,515	6,232	620	16,367	135,542
1925.....	7,378	4,501	880	36	12,795	114,088
1926.....	13,541	26	3,634	723	17,924	145,857
1927.....	13,623	44	3,298	400	17,365	145,820
1928.....	15,398	7	5,113	5	20,523	71,802
1929.....	16,134	.....	1,931	869	18,934	116,040
1930.....	10,870	.....	2,904	50	13,824	89,230
1931.....	8,951	3	1,678	602	11,234	61,222
1932.....	7,720	2	508	.....	8,230	107,204
1933.....	6,582	.....	2,126	.....	8,708	141,204

In addition to the new rock ballast applied, the crushed rock ballast in 108 miles of track was removed, cleaned and replaced. Retirements of equipment were as follows:

13 Locomotives
984 Freight Train Cars
9 Passenger Train Cars
48 Work Equipment Units

The charge to operating expenses for accrued depreciation was \$2,606,687, compared with average annual depreciation charges of \$2,677,615 during the calendar years 1925 to 1929, inclusive.

The increases in Floating Equipment Repairs and Retirements were occasioned by charges incident to the rebuilding of the ferryboats Elmira and Scandinavia.

Your Company's roadbed, tracks, structures and equipment were well maintained and were at the close of the year in good, serviceable condition. No cars or locomotives stored were in need of repairs.

Transportation expenses were reduced substantially in the operation of stations, yards, enginehouses, trains and floating equipment.

A comparison of transportation performance in 1933 with that of the previous year, indicated by revenue ton miles and revenue passenger miles follows:

	1933	1932
Revenue Ton Miles	2,497,525,358	2,482,231,345
Revenue Passenger Miles.....	428,415,662	459,745,665

Payments for loss and damage aggregated \$114,323, a decrease of 24.6 per cent under 1932. The ratio of loss and damage to the gross freight revenues of 1933 was .37 per cent, compared with .47 per cent in 1932. Claims paid for injuries to employees and others amounted to \$403,073, an increase of \$79,705, caused by a credit adjustment in 1932 from the clearance of the unexpended balance of an amount allowed by the Government to meet injury claims during the guaranty period, March 1 to August 31, 1920, and an increase in 1933 of your Company's contribution to the support of the Moses Taylor Hospital, Scranton, Pa.

The working balance of materials and supplies was reduced further during the year. Inventories of materials and supplies for the years indicated, point to progress in releasing capital.

Materials and supplies on hand:

[Advertisement]

December 31, 1923.....	\$5,869,272
December 31, 1924.....	4,871,979
December 31, 1925.....	4,297,274
December 31, 1926.....	3,832,624
December 31, 1927.....	3,131,790
December 31, 1928.....	2,830,533
December 31, 1929.....	2,915,538
December 31, 1930.....	2,466,458
December 31, 1931.....	2,085,245
December 31, 1932.....	1,951,914
December 31, 1933.....	1,828,073

The material balance of 1933 included 5,079 tons of scrap rail, the sale of which has been deferred in anticipation of more active markets and better prices.

Financial

Losses sustained in settlement of interchange traffic balances on freight destined to Canadian points, as a result of the prevailing disparity of exchange, follow:

Year	Sold	Realized	Loss	Average Rate of Discount
1930.....	\$1,723,000.00	\$1,722,440.75	\$559.25	3/100%
1931.....	1,660,000.00	1,597,357.17	62,642.83	3-7/10%
1932.....	1,337,000.00	1,181,238.10	155,761.90	11-3/5%
1933.....	1,137,000.00	1,045,608.17	91,391.83	8%
	\$5,857,000.00	\$5,546,644.19	\$310,355.81	5-3/10%

When the bank holidays were declared in March your Company had on deposit in closed banks \$56,297 which has been reduced to \$47,776, which balance will be liquidated as the affairs of the several reorganized banks are adjusted.

An additional loan of \$500,000 was received from the Railroad Credit Corporation May 22, 1933, bringing the aggregate to \$1,500,000; this was the only borrowing done in 1933 and was repaid to the extent of \$120,219.79 through credit of like amount of advances refunded by that corporation.

Welfare Expenditures

The pension system was inaugurated June 1, 1902. A statement of disbursements by calendar years follows:

Calendar Year	Amount	Calendar Year	Amount	Calendar Year	Amount
1902	\$6,360.94	1913	\$103,607.95	1924	\$260,213.20
1903	16,202.85	1914	111,089.68	1925	302,040.85
1904	24,619.09	1915	122,828.46	1926	347,161.36
1905	31,681.05	1916	134,969.98	1927	369,641.42
1906	45,196.13	1917	154,009.42	1928	401,543.04
1907	51,412.95	1918	153,577.12	1929	447,995.51
1908	57,620.24	1919	160,958.05	1930	499,609.64
1909	71,322.42	1920	187,299.98	1931	556,702.53
1910	80,580.15	1921	213,625.49	1932	579,161.18
1911	85,092.24	1922	223,587.23	1933	602,284.34
1912	93,521.50	1923	245,071.48		\$6,740,587.47

Number of employees pensioned June 1, 1902, to Dec. 31, 1933.....

Number of employees granted pensions during 1933

Number of pensioned employees removed by death during 1933.....

Number of pensioned employees on rolls Dec. 31, 1933.....

Greatest length of service.....

Number of pensioners who served 50 years and over.....

Number of pensioners who served between 40 and 50 years.....

Number of pensioners who served between 25 and 40 years.....

Number of pensioners who served less than 25 years.....

Average number of years in employ of Company

Average age at retirement.....

Average age at present time.....

68 years 8 months

2,216

112

85

805

129

339

327

10

40 years 9 months

67 years 9 months

73 years 4 months

Group Insurance

Pursuant to the Group Insurance Plan effective February 1, 1922, your Company paid \$124,461.59 as its proportion of the premiums for 1933.

The number of beneficiaries and the insurance carried at the close of the year, together with other important facts, follow:

Insured December 31, 1933.....	12,879
Total Insurance December 31, 1933....	\$25,765,000
Deaths during 1933.....	222
Permanent disability claims 1933....	26
Insurance Company paid account of death claims during 1933.....	\$446,000
Insurance Company paid account of disability claims during 1933.....	\$49,475
Premiums paid by employees.....	\$266,690.54

Premiums paid by Company.....	\$124,461.59
Number of Death Claims, Feb. 1, 1922, to Dec. 31, 1933.....	2,048
Number paid permanent disability benefits	214
Amount paid account of death claims Feb. 1, 1922, to Dec. 31, 1933.....	\$3,999,500
Amount paid account of permanent disability claims	\$418,850

In addition to the foregoing expenditures, your Company paid \$38,828.42 as its proportion of the 1933 deficit from the operation of the Moses Taylor Hospital, Scranton, Pa. Your Company also contributed \$12,227.50 to the operating expenses of Railroad Y. M. C. A.'s located at various terminals.

Taxes

A comparative statement of tax assessments by years follows:

Calendar Year	Total Tax Assessments	Taxes per Dollar of Gross Revenue	Taxes per Dollar of Revenue after Operating Expenses
1915.....	\$2,115,333.84	4.72	12.42
1916.....	2,517,882.68	4.88	12.82
1917.....	3,584,917.49	6.27	18.35
1918.....	3,922,872.54	5.71	20.85
1919.....	5,159,802.72	7.18	32.74
1920.....	4,539,785.14	5.45	47.79
1921.....	4,979,439.57	5.80	28.01
1922.....	4,894,466.10	6.56	44.72
1923.....	5,995,697.51	6.80	32.02
1924.....	6,900,101.85	7.96	31.02
1925.....	6,832,652.72	8.17	32.16
1926.....	7,671,403.68	8.64	29.03
1927.....	7,457,093.11	8.81	30.43
1928.....	6,392,638.37	7.88	27.60
1929.....	6,635,895.83	8.12	27.62
1930.....	6,081,111.71	8.73	35.67
1931.....	5,234,483.48	8.92	41.76
1932.....	5,216,791.03	11.23	55.54
1933.....	4,715,876.23	10.88	55.08

During 1933, your Company obtained final settlement with the Treasury Department in respect of its income taxes for 1913 to 1923, inclusive, and for 1927 and 1928, resulting in a net refund, including interest, of \$698,625.34.

Equipment

Eight road freight locomotives were reconstructed in the Company's shops and alterations made to convert those engines into a type suitable for drill service, and two were in process of reconstruction at the end of the year. The conversion of road freight locomotives to switchers, commenced experimentally in 1929, warranted a continuation of the work. Upon completion of the two units mentioned, forty efficient yard service locomotives will be available with an approximate life of twenty years.

Roller bearings were applied to the trucks of five passenger locomotives to overcome excessive lateral wear and to increase efficiency.

Audible whistles and visible cab indicators were applied to 20 locomotives in place of the pneumatic stop feature of automatic train control to effect economy of operation and to provide improved automatic cab signals as an additional safety measure.

Automobile loading devices were applied to 75 freight cars to facilitate loading and unloading.

The ferryboats Elmira and Scandinavia were rebuilt. The hulls and parts of the superstructure of these ferryboats were reconstructed and new boilers were installed, thus increasing the life of the ferryboats at least 20 years. This completes the reconstruction of six ferryboats.

At the close of the year your Company had negotiated contracts for twelve 600-H. P. oil-electric drill service locomotives, to be delivered on or before March 1, 1934.

Road and Structures

Projects completed or upon which substantial expenditures were made during the year follow:

- Additional facilities for handling soft and hard coal, to reduce degradation, South Coal Dumper, Pier No. 5, Jersey City, N. J.;
- Addition of new timber float bridge pontoon to replace worn out pontoon, Transfer Yard, Jersey City, N. J.;
- Remodeling and enlarging the Long Slip Power House, constructing coal track, new brick chimney, air and water lines, installing new machinery and boilers, to effect economy in operation, Hoboken, N. J.;
- Installing new shop machinery at Kingsland, N. J., Scranton and Hampton Yard, Pa.;
- Providing improved service for lights and power at engine-

[Advertisement]

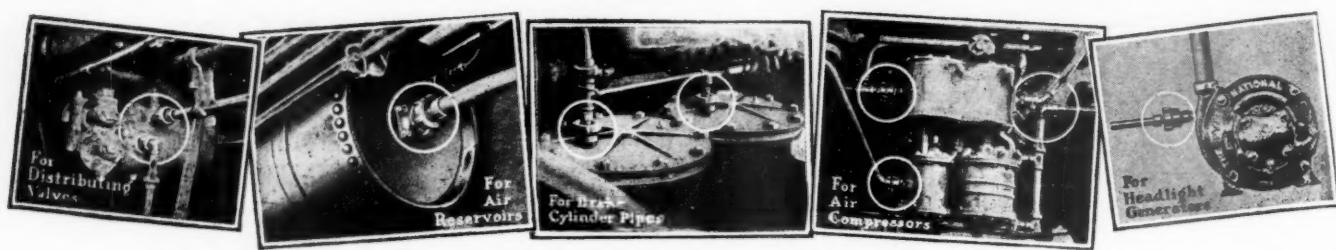
GENERAL BALANCE SHEET, DECEMBER 31ST, 1933 AND 1932

ASSETS

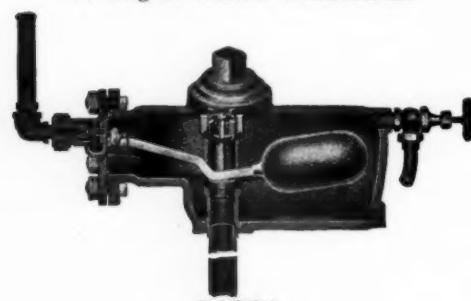
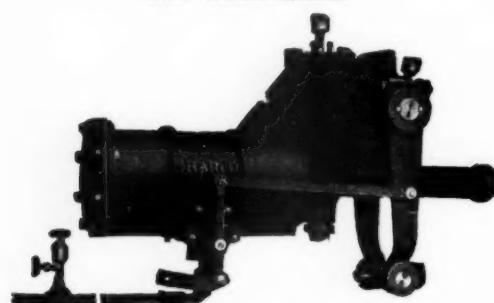
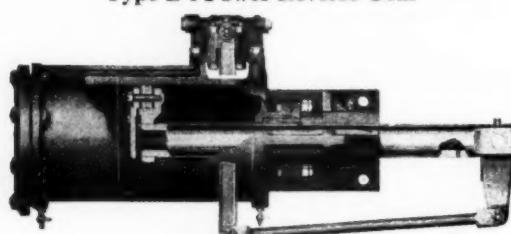
LIABILITIES

	1933	1932	Increase or Decrease		1933	1932	Increase or Decrease
INVESTMENTS:							
Investment in Road and Equipment:							
Road	\$54,773,406.90	\$54,469,551.37	\$303,855.53				
Equipment	66,638,746.61	68,091,460.32	1,452,713.71				
Improvements on Leased Railway Property ..	16,251,028.18	16,293,280.93	42,252.75				
Miscellaneous Physical Property ..	2,281,175.95	2,273,439.01	7,736.94				
Investment in Affiliated Companies:							
Stocks	9,485,171.37	9,485,171.37	618.79				
Bonds	3,370,791.75	3,390,078.50	19,286.75				
Notes	3,772,964.42	3,772,964.42	2,500.00				
Advances	4,411,807.10	4,097,837.13	313,969.97				
Other Investments:							
Stocks	1,262,837.57	1,262,218.78	618.79				
Bonds	<i>*25,516,642.21</i>	<i>25,489,730.70</i>	<i>26,911.51</i>				
Notes	630,457.11	632,957.11	2,500.00				
Advances	12,660,375.55	12,518,084.45	142,291.10				
Miscellaneous	3,844.27	.....	3,844.27				
Total Investments..	\$201,059,248.99	\$201,776,774.09					
CURRENT ASSETS:							
Cash	\$4,212,061.86	\$3,468,491.51	743,570.35				
Time Drafts and Deposits	50,000.00	.....	50,000.00				
Loans and Bills Receivable	17,456.00	13,311.25	4,144.75				
Traffic and Car Service Balances Receivable	823,749.14	855,159.66	31,410.52				
Net Balances Receivable from Agents and Conductors	741,696.24	706,638.50	35,057.74				
Miscellaneous Accounts Receivable	1,074,580.57	1,223,658.92	149,078.35				
Materials and Supplies	1,828,073.25	1,951,913.88	123,840.63				
Total Current Assets	\$8,747,617.06	\$8,219,173.72					
DEFERRED ASSETS:							
Working Fund Advances	\$27,977.50	\$36,360.55	8,383.05				
Insurance and Other Funds	178,512.75	178,512.75	.....			
Other Deferred Assets..	100.00	.....	100.00				
Total Deferred Assets	\$206,590.25	\$214,873.30					
UNADJUSTED DEBITS:							
Rents and Insurance Premiums Paid in Advance	\$614,359.76	\$605,332.53	9,027.23				
Other Unadjusted Debits	84,947.81	669,013.41	584,065.60				
Total Unadjusted Debits	\$699,307.57	\$1,274,345.94					
Grand Total	\$210,712,763.87	\$211,485,167.05	\$772,403.18				
* Pledged \$22,393.000.							
Figures in italics denote decrease.							
houses, installing modern safety front, high-and-low-tension switch gear to reduce maintenance costs, Scranton, Pa.;							
6. Realigning main tracks to improve condition of roadway at Luzerne Cut, west of Scranton, Pa.;							
7. Completing construction of 1,179 feet of track and bridge for connection with the Dansville and Mount Morris Railroad at Groveland, N. Y.;							
8. Substituting electric lighting for oil lighting of semaphore signals, using primary battery with approach lighting of automatic signals, Elmira to Buffalo, and Black Rock Branch, N. Y., to reduce cost of operation;							
9. Adding automatic interlocking complete with color light, home and distant signals and controls at Erwin's Crossing of Erie Railroad, Painted Post, N. Y.;							
10. Extending shoulder of roadbed along eastbound side between Coopers and Bath, N. Y., to permit main track being held permanently to surface.							
Industrial tracks were constructed or extensions made to previously existing tracks serving industries at Bloomfield, Boonton and Bernardsville, N. J.; Kingston, Wyoming and Scranton, Pa.; Galena and Candor, N. Y.							
Grade Crossings							
Grade crossing elimination projects shown in 1932 report as being in process of construction were completed:							
7 at Black Rock, N. Y.—under-crossings.							
1 at Richfield Junction, N. Y.—overhead highway bridge, Plank Road.							
1 at Syracuse, N. Y.—marginal highway, Plank Road.							
Grade crossing eliminations were in progress at the close of the year at the following points:							
1 at Cheektowaga, N. Y.—under-crossings, Violet Ave.							
1 at Vestal, N. Y.—under-crossing Vestal County Highway No. 420.							
2 at Chenango Forks, N. Y.—marginal highway, Willard's and Hill Road.							
The loyal and efficient services during the year of officers and employees of the Company are fully appreciated by the management and are duly acknowledged.							
By order of the Board of Managers.							
J. M. DAVIS, President.							

[Advertisement]



BARCO Flexible Joints in Locomotive Piping

BARCO
3V Engine-Tender ConnectionsBARCO
Low Water AlarmBARCO
Type B 4 Power Reverse GearBARCO
Type M 1 Power Reverse GearBARCO All Metal
Steam Heat ConnectionsBARCO Special
Reverse Gear
Joint

Barco Products Are Contributing To The Efficiency and Economy of Railroad Operation

BARCO Devices are serving the railroads in many capacities, saving thousands of dollars annually in the operation and maintenance of locomotives, engine-terminals, shops, coach yards and stations.

Between the engine and tender, BARCO 3V metallic connections have proven to be a big factor in the elimination of failures and delays.

BARCO Low Water Alarms are guarding many locomotives against disastrous explosions and burned crown sheets. Thousands of dollars are saved annually in the reduction of boiler maintenance costs.

BARCO Power Reverse Gears have contributed greatly to the efficiency of locomotive operation. The type M 1, air-cushioned gear provides close adjustment and accurate maintenance of cut-off through a new Dual Control Valve.

BARCO 2" Metallic Steam Heat Connections on the rear of tenders and between passenger cars have played a leading part in the reduction of steam heating costs, conservation of fuel and elimination of needless maintenance.

Barco Manufacturing Co.

1801 Winnemac Avenue, Chicago, Illinois

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Winnipeg—Vancouver

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